



1 Product and company identification

[Product name]

Stainless steel sheets and strip
Heat-resistant steel sheets and strip

[Supplier]

Nippon Steel & Sumikin Stainless Steel Corporation
Address : 2-6-1 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan
Division in charge : Products Development Division
Telephone number : 03-3276-4890
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Emergency address and telephone number : Same as above

2 Composition/information on ingredients

Substance or preparation Preparation (Alloy)

Main ingredients

Ingredient Name	Conc. (%)	CAS No.	ICSC No.
Iron [Fe]	Balance	7439-89-6	—
Silicon [Si]	Under 5	7440-21-3	—
Manganese [Mn]	Under 12	7439-96-5	0174
Nickel [Ni]	Under 37	7440-02-0	0062
Chromium [Cr]	Under 32	7440-47-3	0029
Molybdenum [Mo]	Under 7	7439-98-7	—
Copper [Cu]	Under 5	7440-50-8	0240
Niobium [Nb]	Under 2	7440-03-1	—
Titanium [Ti]	Under 3	7440-32-6	—
Aluminum [Al]	Under 5	7429-90-5	—
Tungsten [W]	Under 3	7440-33-7	—
Cobalt [Co]	Under 21	7440-48-4	—

3 Hazards identification

At present, we have to effective information on hazards identification under general conditions. However, the fumes resulting from welding, autogenous cutting, etc. and the fine particles resulting from grinding, etc. may irritate the respiratory organs, the mucous membrane of the eye, etc. Burns may result from arcing. Moreover, cutting chips or the like may be injurious to the skin.

4 First-aid measures

After receiving the first-aid measure required, consult a physician if necessary. Examples of first-aid measures are given below.

- ◆ If respiration becomes difficult due to fumes or the like, apply a respiratory aid and consult a physician immediately.
- ◆ When a burn is caused by arcing or the like, cool the affected part and receive medical treatment if necessary.
- ◆ If the mucous membrane of the eye or the like is irritated by fumes, fine particles, etc., wash the affected part with water and consult a physician immediately.
- ◆ When the skin is injured by cutting chips or the like, keep the wound clean and receive medical treatment if necessary.

5 Fire-fighting measures

Fine particles may be combustible and explosive.

6 Accidental release measures

As the product is a solid, it is not released under general conditions.

7 Handling and storage

Avoid unnecessary wetting with water, contact with acids and high-temperature and high-humidity environments. In the case of heavy product, take precautions to prevent the possibility of falling.

8 Exposure controls/personal protection

At present, we have no effective information on exposure controls and personal protection under general conditions. When performing welding, autogenous cutting, grinding, cutting, etc., wear masks, goggles, gloves, work clothes, etc. for prevention of fume inhalation and irritation to the mucous membrane and for protection from arcs and cutting chips.

9 Physical and chemical properties

Physical state A silver-white solid under general conditions
Physical properties Fusion point : 1,455 ~ 1,535°C
Density : Approx.7.7~8.0 g/cm³

10 Stability and reactivity

The product is stable with low reactivity under general conditions. However, rust may appear if the product comes into contact with water or an oxidizing substance. This rusting may be accompanied with a deficiency of oxygen or the generation of hydrogen.

This data sheet has been drawn up in accordance with ISO 11041-1 "Safety Data Sheet for Chemical Products", Part 1 "Content and Order of Sections" (hereinafter referred to as "ISO"). The definitions of terms conform to ISO.

In this data sheet, the information which is available at Nippon Steel & Sumikin Stainless Steel Corp. at the time of sheet preparation is furnished to the users as the "reference

11 Toxicological information

At present, we have no effective epidemiological information on the toxicological (health) effects of this steel product. For some of alloying elements, however, toxicological effects may be pointed out, for example, in cases where the concentration of respective element exceeds a certain level (e.g., allowable concentration) during the operations described in Section 8. The toxicological information is obtained from, for example, the ICSC (supervised by the Environmental Health Bureau, Ministry of Health and Welfare), etc

12 Ecological information

At present, we have no effective ecological information. For some of alloying elements, however, environmental effects may be pointed out. The ecological information is obtained, for example, from the ICSC (supervised by the Environmental Health Bureau, Ministry of Health and Welfare). etc.

13 Disposal considerations

Basically, disposal is entrusted to legally approved industrial waste management contractors. If there is any substance adhering to the waste to be disposed of, the contractor is selected, paying attention to the adhering substances.

14 Transport information

In the case of heavy product, exercise care for prevention of load shifting. It is desirable to cover the product with tarpaulin or the like to prevent infiltration of rain water, etc.

15 Regulatory information

No specific information

16 Other information

For inquiries, refer to Products Development Div., Nippon Steel & Sumikin Stainless Corporation.
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information" for securing safe handling of the product. Referring to this data sheet, the users should take appropriate safety measures on their own responsibility depending on the actual state of handling. This data sheet is not intended for assuring the safety of the product. There is a possibility of hazards which are not described in this data sheet and for which our company does not have any specific information.