

Safety Data Sheet



According to 91/155/EEC

Version: 04.14/ Revision: 6

Product: Nickel plated CRS

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Hille & Müller GmbH

TATA Steel Plating

1. Substance / Formulation and Company Name

Product details: Nickel-plated cold-rolled strip (HILAN[®], HILUMIN[®], NICOR[®])

Manufacturer's details:

Manufacturer / Supplier: Hille & Müller GmbH
Tata Steel Plating
Am Trippelsberg 48
D-40589 Düsseldorf
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Email: igor.gricar@tatasteel.com

Department for information: UM/QM, Environment and Quality

Tel.: (0211) 7950-445 or Fax.: (0211) 7950-5445 or 5349

Emergency telephone: (030) 30353466; Emergency poison call centre, Berlin

2. Composition / Details of constituents

Chemical characterization:

Hazardous constituents:

CAS No.	Designation according to EC directives	Code letter(s) CLP	H & P phrases
7440-02-0	Nickel (0,1 – 1 %)	07 08	H: 351-372-317-412 P: 281-273-308+313-302+352

Additional information **Steel/ Steelstrip:**

Element (Symbol)	CAS-Nr.	Konzentration
Iron (Fe)	7439-89-6	98 – 99 %
Carbon (C)	7440-44-0	< 0,5 %
Manganese (Mn)	7439-96-5	< 0,5 %
Phosphorous (P)	7723-14-0	< 0,1 %
Sulfur (S)	7704-34-9	< 0,1 %
Silicon (Si)	7440-21-3	< 0,1 %
Aluminium (Al)	7429-90-5	< 0,1 %
Boron (B)	7440-42-8	< 0,1 %
Copper (Cu)	7440-50-8	< 0,1 %
Nitrogen (N)	7727-37-9	< 0,1 %
Chrome (Cr)	7440-47-3	< 0,1 %
Molybdän (Mb)	7439-98-7	< 0,1 %

3. Possible hazards

Description of hazards:

4. First-aid measures

Hille & Müller GmbH is a subsidiary of TATA Steel Plating

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General: No particular first-aid measures necessary.

5. Firefighting measures

Suitable extinguishers: Product itself does not burn, determine extinguishing measures according to the surrounding fire.

Particular protective equipment: No particular measures necessary.

6. Measures in the event of unintentional release

Personal safety precautions: Avoid dust formation.

Environmental protection measures: No particular measures necessary.

7. Handling and storage

Handling:

Instructions for safe handling: Avoid inhalation of grinding and polishing dusts, cutting and welding fumes and aerosols.

Instructions on fire and explosion protection: The product is not combustible.

Storage:

Storage area and container requirements: No particular measures necessary.

Instructions on storage together with other materials:

Do not store near acids; nickel can react violently with acids and release hydrogen.

8. Exposure limits and personal protective equipment

Constituents with workplace-related limit values to be monitored:

CAS No.	Chemical name of the substance	Nature of limit	Limit	Unit
7440-02-0	Nickel	Technical Recommended Concentration	0.5	mg/m ³

Personal protective equipment:

Respiratory protection: If nickel is present in a respirable form, use respiratory protection filter class P3.

Hand protection Protective gloves

Eye protection: Safety glasses

Safety and hygiene measures:

Keep away from food, drink and animal feeds. Vacuum-clean contaminated clothing, do not blow or brush off. Do not inhale dust / fumes / mist. Do not eat, drink, smoke or take snuff while working.

Avoid prolonged intensive skin contact. Wash hands before breaks.

9. Physico-chemical properties

State:

Form: solid

Smell: odourless

Colour: silver-grey

Safety-related data:

Boiling point / Boiling range: 2,732 °C

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Melting point / Melting range: 1453 °C

Vapour pressure: 10⁻⁹ hPa (818 °C)

Density: 8,91 g/cm³ (20 °C)

10. Stability and reactivity

Substances to be avoided: Nickel can react violently with acids and release hydrogen. Explosive gas mixtures may be formed as a result.

Hazardous decomposition products: No hazardous decomposition products known.

11. Toxicology data

Toxicology tests:

Acute toxicity: No danger. Nickel metal has a low oral toxicity.

Classification-relevant LD₅₀ / LC₅₀ values:

Type	Values / Value range	Unit	Species	Method
oral	> 9000	mg/kg	rat	

Specific symptoms in animal studies:

Irritant / Corrosive effect	Rating	Species	Method
On skin	no irritant effect		
On eyes	no irritant effect		
Sensitization			
Skin	by skin contact sensitization possible		
Respiratory tract	no irritant effect		

Effects after repeated or longer-lasting exposure:

According to the EC Carc. Cat. 3, **nickel in respirable form** is possibly carcinogenic to the human organism. In the production of nickel from its ores, combinations of nickel sulphides and oxides have been demonstrated to be carcinogenic to man. However, the carcinogenic substances have not been identified. The risk of cancer appears to be linked to the previously common nickel refining processes. Brief exposure may cause irritation of the upper respiratory tract. However, various reliable studies on employees in the nickel processing industry who were exposed to various forms of nickel and nickel-containing materials have not shown an increased risk of cancer.

Repeated skin contact with metallic nickel may cause sensitization and allergies.

12. Ecological data

Behaviour in environmental compartments:

Other: Nickel-plated cold-rolled strip is not harmful to the environment.

Further ecological information:

General: Water hazard class 0; generally not water-polluting.

13. Disposal information

Product: **Nickel-plated cold-rolled strip**

Recommendation: Nickel-plated cold-rolled strip can be re-used after processing.

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Waste product code no.: 12 01 01 or 17 04 05 (European Waste Products List code)
Waste product name: see European Waste Products List code

14. Transportation details:

Transportation / further information: Nickel-plated cold-rolled strip is not a hazardous material.

15. Regulations

Identification:

Code letter and hazard designation of the product: Xn, detrimental to health

Hazard-determining component(s) indicated on the label: Nickel, Carc. Cat. 3

R phrases: **R 40** Irreversible damage possible
R 43 May cause sensitization by skin contact

S phrases: **S 22** Do not breathe dust
S 36 Wear safety equipment

National regulations:

Water hazard class:

WHC 0: generally not water-polluting.

16. General

Further information:

The information is based on our current state of knowledge, it is not a guarantee of the product's properties and establishes no contractual legal relationship.

Sources of the most important data used to compile the Safety Data Sheet:

- [1] German Hazardous Substances Act
- [2] Bundesverband der Deutschen Industrie e.V., standard sets of the EC Safety Data Sheet
- [3] INCO, Safety Data Sheet Nickel
- [4] Maximum Workplace Concentration and Biological Workplace Tolerance Values List 1999, Senate Committee on Testing of Harmful Workplace Substances

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Compiled by:

Düsseldorf, September 2020