Safety Data Sheet

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1. Idenftification

Product name : SUS316L / TOKKIN 316L

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Reference	: JIS Z 7253:2019 NITE Chemical Risk Information Platform (NITE-CHRIP)

2. Hazard identification

GHS classification

Physical hazards

Explosives	: No classification
Flammable gases	: No classification
Aerosols	: No classification
Oxidizing gases	: No classification
Gases under pressure	: No classification
Flammable liquids	: No classification
Flammable solids	: No classification
Self-reactive substances and mixtures	: No classification
Phyrophoric liquids	: No classification
Phyrophoric solids	: Classification not possible
Self-heating substances and mixtures	: No classification
Substances and mixtures which, in contact with water, emit flammable gases	: Classification not possible
Oxidizing liquids	: No classification
Oxidizing solids	: No classification
Organic peroxides	: No classification
Corrosive to metals	: Classification not possible
Desensitized explosives	: No classification

Health hazards

Acute toxicity - Oral	: No classification
Acute toxicity - Dermal	: No classification
Acute toxicity - Gases	: No classification
Acute toxicity - Vapours	: Classification not possible
Acute toxicity - Dusts and Mists	: Category 2
Skin corrosion/irritation	: No classification
Serious eye damage/irritation	: Category 2/2A
Respiratory sensitization	: Category 1
Skin sensitization	: Category 1
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Category 2
Reproductive toxicity	: Category 1

Specific target organ toxicity - Single exposure : Category 1 (respiratory system, kidney)
Category 3 (respiratory tract irritation)
Specific target organ toxicity - Repeated exposure : Category 1 (respiratory system, nerve system, blood system, heart, thyroid gland, organs of generation (man))
Aspiration hazard : Classification not possible

Environmental hazards
Hazardous to the aquatic environment - Short-term (acute) hazard : No classification
Hazardous to the aquatic environment - Long-term (chronic) hazard : No classification
Hazardous to the ozone layer : Classification not possible

Label elements

Symbol

Single word
Danger

Hazard statement
- H330 Fatal if inhaled
- H319 Causes serious eye irritation
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H317 May cause an allergic skin reaction
- H351 Suspected of causing cancer
- H360 May damage fertility or the unborn child
- H370 Causes damage to organs <respiratory system, kidney>
- H335 May cause respiratory irritation
- H372 Causes damage to organs <respiratory system, nerve system, blood system, heart, thyroid gland, organs of generation (man)> through prolonged or repeated exposure

Precautionary statements

Prevention
- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 In case of inadequate ventilation, wear respiratory protection.

Response
- P314 Get medical advice/attention if you feel unwell.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P304+P310 IF INHALED: Immediately call a POISON CENTER/doctor.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage
- P405 Store locked up.

Disposal
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Chemical identity of the substance : Mixture (Alloy)
Common names, synonym of the substance: Cold-rolled stainless steel strip
Identification number and concentration of all hazardous ingredients

Chemical name	Formula	Percent (%)	CAS No.
Iron	Fe	Balance	7439-89-6
Chromium	Cr	16 - 18	7440-47-3
Nickel	Ni	12 - 15	7440-02-0
Molybdenum	Mo	2 - 3	7439-98-7
Manganese	Mn	≦2	7439-96-5
Silicon	Si	≦1	7440-21-3
Cobalt	Co	≦1	7440-48-4

*The component may include 0.1% or less of trace elements.

4. First-aid measures

Inhalation : Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Skin contact : Wash with plenty of soap and water.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Swallowing : Rinse mouth. Immediately consult a doctor.

5. Fire-fighting measures

Suitable extinguishing media : Foam fire extinguisher, sand
Unsuitable extinguishing media : CO2, water spray

6. Accidental release measures

It is the solid with the shape, and there is not the applicable matter.

7. Handling and storage

Handling : Be careful with falling accident. Wear safeguard tools to be not injured by sharp edge.

Storage : Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

8. Exposure controls/personal protection

Control concentration :

Name	ACGIH TWA(mg/m^3)	Japan Society for Occupational Health AEL(mg/m^3)
Chromium	0.5	0.5
Nickel	1.5(I)	1
Molybdenum	3(R)/10(I)	-
Manganese	0.02(R)/0.1(I)	0.2
Cobalt	0.02	0.05

Remarks
Reference: NITE Chemical Risk Information Platform (NITE-CHRIP)
(R): Respirable fraction
(I): Inhalable fraction

Protective equipment
Respiratory protection : If powder occurs: local exhaust or breathing protection
Hand protection : If the fingers may be damaged: protective gloves
Eye protection : If powder occurs: safety goggles
Skin protection : If heavy goods are handled: protective cloth

9. Physical and chemical properties

Physical state : Tabular solid
Colour : Silver
Odour : Odorless
Density : 7.98 g/cm^3
Other physical and chemical properties
: No data

10. Stability and reactivity

Reactivity : Generally this product is considering a stable material.
Chemical stability : Generally this product is considering a stable material.
Possibility of hazardous reactions
: Hydrogen is produced in response to acid.
Conditions to avoid : Contact with the acid
Incompatible materials : Potassium permanganate, chlorate, acid
Hazardous decomposition products
: Hydrogen

11. Toxicological information

Name	Cr	Ni	Mo	Mn
Acute toxicity				
- Oral	Classification not possible	Not classified	Classification not possible	Not classified
- Dermal	Classification not possible	Classification not possible	Classification not possible	Classification not possible
- Gases	Not applicable	Not applicable	Not applicable	Not applicable
- Vapours	Classification not possible	Classification not possible	Not applicable	Classification not possible
- Dusts and Mists	Classification not possible	Classification not possible	Classification not possible	Classification not possible

Skin corrosion/irritation	Classification not possible	Classification not possible	Category 2	Category 3
Serious eye damage/irritation	Category 2	Classification not possible	Category 2	Category 2B
Respiratory sensitization	Category 1A	Category 1	Classification not possible	Classification not possible
Skin sensitization	Category 1A	Category 1	Classification not possible	Classification not possible
Germ cell mutagenicity	Classification not possible	Classification not possible	Classification not possible	Classification not possible
Carcinogenicity	Classification not possible	Category 2	Classification not possible	Not classified
Reproductive toxicity	Classification not possible	Classification not possible	Classification not possible	Category 1B
STOT - Single exposure	Category 3 (respiratory tract irritation)	Category 1 (respiratory system, kidney)	Category 3 (respiratory tract irritation)	Category 1 (respiratory system)
STOT - Repeated exposure	Classification not possible	Category 1 (respiratory system)	Classification not possible	Category 1 (nerve system, respiratory system)
Aspiration hazard	Classification not possible	Classification not possible	Classification not possible	Classification not possible

Name	Co
Acute toxicity	
- Oral	Category 4
- Dermal	Classification not possible
- Gases	Not classified
- Vapours	Classification not possible
- Dusts and Mists	Category 1
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Category 2B
Respiratory sensitization	Category 1A
Skin sensitization	Category 1A
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Category 2
Reproductive toxicity	Category 1B
STOT - Single exposure	Category 1 (respiratory system)

STOT - Repeated exposure	Category 1 (respiratory system, heart, thyroid gland, blood system, organs of generation (man))
Aspiration hazard	Classification not possible

Reference: NITE Chemical Risk Information Platform (NITE-CHRIP)

12. Ecological information

Hazardous to the aquatic environment_acute hazard
: No classification
Hazardous to the aquatic environment_long-term hazard
: No classification
Hazardous to the ozone layer
: No data
Other ecological information
: No data

13. Disposal considerations

Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

UN No : Not applicable
Domestic restriction
Fire Service Act : Not applicable
Ship Safety Act : Not applicable
Civil Aeronautics Act : Not applicable
Internationnal restriction
IMO information : Not applicable
IATA/ICAO information : Not applicable

15. Regulatory information

Industrial Safety and Health Act
Chromium and its compounds : 142
Nickel and its compounds : 418
Molybdenum and its compounds : 603
Manganese and its compounds : 550
Cobalt and its compounds : 172
PRTR
Chromium or trivalent chromium : 1-087 (Control number after 2023: 87)
Nickel : 1-308 (Control number after 2023: 308)
Molybdenum and its compounds : 1-453 (Control number after 2023: 453)
Manganese and its compounds : 1-412 (Control number after 2023: 412)
Cobalt and its compounds : 1-132 (Control number after 2023: 132)

16. Other information

The Safety Data Sheet (SDS) is designed to provide forwarding and handling agents with reference information on the safe handling of dangerous and hazardous chemical materials.

In making use of this safety data sheet, forwarding and handling agents are requested to understand on their own responsibility the necessity of taking appropriate measures compatible with the individual forwarding and handling operations.

This safety data sheet should not therefore be regarded as a guarantee of safety.