



INCONEL STEEL WIRE MESH

1 PRODUCT & COMPANY IDENTIFICATION

Revision Date: 2025
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2 INGREDIENTS

	Material/Component	CAS #	% Weight	OSHA PEL (mg/m2)	ACGIH TLV (mg/m2)
Base Metal:	Iron (Fe)	7439-89-6		10(Fe2O2 Fume)	5.0(Fe2O2 Fume)
Alloying Elements:	Carbon (C)	7440-44-0	0.1 Max	None Listed	None Listed
	Manganese (Mn)	7439-96-5	1.0 Max	5.0 as Manganese	1.0 as Manganese
	Phosphorous (P)	7723-14-0		0.1 as Phosphorous	0.1 as Phosphorous
	Sulfur (S)	7704-34-9	0.015 Max	13 (Sulfur Dioxide)	5 (Sulfur Dioxide)
	Silicon (Si)	7440-21-3	0.5 Max	None Listed	None Listed
	Chromium (Cr)	7440-47-3	21.0 - 25.0	1.0 as Chromium	0.5 as Chromium
	Nickel (Ni)	7440-02-0	58.0 - 63.0	1.0 as Nickel	1. as Nickel
	Selenium (Se)	7782-49-2	0.0 - 0.35	0.2 as Selenium	0.2 as Selenium
	Columbium (Cb)	7440-03-1			
	Tantalum (Ta)	7440-25-7		5.0 as Tantalum	5.0 as Tantalum
	Cooper (Cu)	7440-50-8	1.0 Max		
	Molybdenum (Mo)	7439-98-7			
	Aluminum (Al)	7429-90-5	1.0 - 1.7		
	Titanium (Ti)	7440-32-6			

Note: The above listing is a summary of elements used to alloy stainless steel. Various grades of stainless contain different combinations of these elements. Trace elements may also be present in minute quantities.

3

PHYSICAL DATA

Material is (ad Normal Conditions):	Liquid
Appearance and Odor:	Grey-black with metallic luster; Odorless.
Acidity / Alkalinity:	pH = N/A
Melting Point:	2700°F
Boiling Point:	N/A
Specific Gravity (H2O=1):	Approximately 8
Solubility in Water (% by Weight):	N/A
Vapor Pressure (mm Hg at 20°C):	N/A

4

PERSONAL PROTECTIVE PROCEDURES

Performance Protection:	NIOSH-approved dust/mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is exceeded.
Eye and Face:	Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.
Hands, Arms, and Body:	Use appropriate protective clothing such as welder's aprons & gloves when welding or burning. Check local codes.
Other Conditions and Equipment:	As required.

5

EMERGENCY MEDICAL PROCEDURES

Inhalation:	Remove to fresh air; If condition continues, consult physician.
Eye Contact:	Immediately flush well with running water to remove particulate; get medical attention.
Skin Contact:	If irritation develops, remove clothing and wash well with soap and water. If condition persists seek medical attention.
Ingestion:	If significant amounts of metal are ingested, seek medical attention.

6

HEALTH / SAFETY INFORMATION

Effects of Overexposure:	<p>Steel products in their natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which result in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards.</p> <p>The above operations should be performed in well-ventilated areas. The major exposure hazard is inhalation. Acute: Excessive inhalation of all metallic fumes and dusts may result in irritation of eyes, nose, and throat. Also, high concentrations of fumes and dust of iron-oxide, manganese, copper & selenium may result in metal fumes. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills, and fever, and usually last from 12 to 48 hours.</p> <p>Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element: Iron (iron-oxide): Pulmonary effects, siderosis; Chromium: Various forms of dermatitis, inflammation, and/or ulceration of upper respiratory tract, and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer; Nickel: Same as Chromium; Selenium: Nasal and bronchial irritation, gastro-intestinal; Copper: Pulmonary effects; Vanadium: No reported cases of exposure to vanadium; Cobalt: Inhalation of cobalt dust may cause an asthma-like disease with cough and dyspnea; Molybdenum: Pain in joints, hands and feet.</p>
Occupational Exposure Limits:	See Section 1.

7

FIRE AND EXPLOSION

Flash Point:	N/A
Auto Ignition Temperature:	N/A
Flammable Limits on Air:	Lower: N/A Upper: N/A
Extinguishing Limits:	N/A
Fire and Explosion Hazards:	None
Extinguishing Method to be Used:	N/A

8

REACTIVITY

Stability:	Stable.
Incompatibility (Materials to Avoid):	Reacts with strong acids to form hydrogen gas.
Conditions to Avoid:	Non-ventilated areas when cutting, welding, burning or brazing; avoid generation of airborne dust and fumes.
Hazardous Decompositions Products:	Metallic oxides

9

ENVIRONMENTAL

Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum. Dust, etc – follow federal, state and local regulations regarding disposal.

10

ADDITIONAL INFORMATION

Disclaimer:	Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).
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