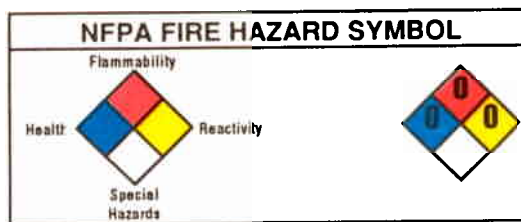


# MATERIAL SAFETY DATA SHEET (MSDS)

## STAINLESS STEEL



## COMBINED METALS OF CHICAGO

LIMITED PARTNERSHIP

ISSUED: January 1, 1994

<b>SECTION I</b>	<b>EMERGENCY TELEPHONE NO.</b>
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TRADE NAME: Stainless Steel - Sheet, Strip, and Plate	(708) 547-8800
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CHEMICAL NAME AND SYNONYMS: NA
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MANUFACTURER'S NAME AND TELEPHONE NO.: Combined Metals of Chicago (708) 547-8800
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ADDRESS: 2401 W. Grant Ave., Bellwood, IL 60104
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<b>SECTION II - HAZARDOUS INGREDIENTS</b>	<b>%</b>	<b>TLV</b>	<b>PEL</b>	<b>UNITS</b>	
<u>CHEMICAL NAME</u>	<u>CAS. NO.</u>				
Iron oxide dust and fume (as Fe)	01309-37-1	50-88	5	10	mg/m <sup>3</sup>
Manganese, as Mn(*), Fume	07439-96-5	1-7.5	1	1	mg/m <sup>3</sup>
Chromium metal (as Cr), (*)	07440-47-3	0.5-30	0.5	1	mg/m <sup>3</sup>
Nickel (*), Metal	07440-02-0	0.5-37	1	1	mg/m <sup>3</sup>
Tantalum, metal and oxide dust	07440-25-7	<1.25	5	5	mg/m <sup>3</sup>
Aluminum, as Al (*)	07429-90-5	<1.5	5	5	mg/m <sup>3</sup>
Molybdenum (Soluble Compounds)	07439-98-7	<4.5	5	5	mg/m <sup>3</sup>

<b>ENVIRONMENTAL DATA</b>
<ul style="list-style-type: none"><li>(*) SARA 313 Reportable Chemicals</li><li>CMC steel does not contain and is not manufactured with Class I or Class II Ozone Depleting Chemicals.</li><li>If this product is used for packaging, the combined concentrations of Mercury, Cadmium, Lead and Hexavalent Chromium do not exceed 100 ppm.</li></ul>

## SECTION III - PHYSICAL DATA

BOILING POINT (°F)	NA	SPECIFIC GRAVITY (Water=1)	Approx. 7
VAPOR PRESSURE (MM Hg.)	NA	PERCENT VOLATILE BY VOLUME	NA
VAPOR DENSITY (AIR=1)	NA	pH	NA
SOLUBILITY IN WATER	NA	EVAPORATION RATE	NA

APPEARANCE AND ODOR	Metallic gray-solid block, stainless steel-sheet, strip and plate; no odor
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## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (Method used)	NA	FLAMMABLE LIMITS %by Vol.	LEL: NA	UEL: NA
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EXTINGUISHING MEDIA: NA for stainless steel; dry chemical and sand for dust and powder metal fires.
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SPECIAL FIREFIGHTING PROCEDURES: No special requirements for this product, use traditional firefighting techniques.
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UNUSUAL FIRE AND EXPLOSION HAZARDS: NA for stainless steel. If present as dust or powder, dust and powder are subject to rapid oxidation.
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ADDITIONAL INFORMATION: Stainless steel is not combustible; only dust and powder are subject to oxidation and fire.
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## SECTION V - HEALTH HAZARD INFORMATION

### ACUTE EFFECTS/SYMPTOMS:

Stainless steel presents no health hazards. Operations which result in generation of metal fume may cause "metal fume fever", symptoms of which include chills and fever which occur several hours after heavy exposure. Symptoms dissipate within a day or two.

### CHRONIC EFFECTS/SYMPTOMS:

Stainless steel presents no health hazards. Chromium and nickel fumes are suspect carcinogens and can cause sensitization (allergic reaction). Iron oxides can cause a benign lung condition (siderosis).

CARCINOGENICITY\* NTP yes  no  IARC yes  no  OSHA yes  no  OTHER NIOSH

\*The carcinogen information above applies only to components in fume or dust form which can be inhaled.

## FIRST AID

EYES	Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open. Get prompt medical attention.
SKIN	For dust and powder forms, wash affected area with soap and water. Get medical help if irritation or rash develops.
INHALATION	If exposed to welding fume, dust or powder, move victim to fresh air and treat symptomatically.
INGESTION	Contact local poison control center or physician. Ingestion is not normally expected.

## SECTION VI - REACTIVITY DATA

STABILITY	Stable
INCOMPATIBILITY	For dust and powder forms only, avoid contact with strong acids or bases and chemical oxidizers.
DECOMPOSITION	For dust and powder forms only, hydrogen gas can be generated in contact with moisture or acids.
POLYMERIZATION	None

## SECTION VII - SPILL OR LEAK PROCEDURES

PROCEDURES	Stainless steel chips or pieces can be swept and collected for recycle. For dust and powdered forms, clean up using vacuum system to reduce generation of dust.
WASTE DISPOSAL METHOD	Collect for recycle or sale as scrap steel. Follow local, state and federal regulations.

## SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY	If TLV is exceeded, or for symptoms of overexposure, wear a NIOSH-approved respirator for dust and fumes.
EYEWEAR	Wear appropriate eye protection for welding, burning, grinding or cutting.
CLOTHING/GLOVES	Not normally required. If potential for extended contact with dust exists, wear protective gloves.
VENTILATION	Local exhaust may be necessary under some handling/use conditions, such as welding or processing of dust and powdered forms of this product.

## SECTION IX - ADDITIONAL INFORMATION

This material presents no health hazards unless it is welded, burned, ground or cut. During these or similar procedures, it is possible that fumes, dust or powder may be generated. Each process or operation should be evaluated to determine the hazard potential.

The information contained herein has been developed based upon currently available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. By furnishing Material Safety Data Sheets, Combined Metals of Chicago makes no warranties expressed or implied, including implied warranties or merchantability and/or fitness for a particular purpose.

