

MATERIAL SAFETY DATA SHEET

 TRADE NAME (Common Name or Synonym)
Barre d'acier recouverte de chrome (induction)

 CHEMICAL NAME
Chrome Plated 1045, 1050

I. INGREDIENTS

Material or Component	CAS Number	% Weight	EXPOSURE LIMITS	
			OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Base Metal Fer (Fe)	7439-89-6	95-99	10 (Oxide Fume)	5 (As Iron Oxide)
Alloying Elements				
Aluminum (Al)	7429-90-5	<2	15 Dust	10 (Dust)
Carbone (C)	7440-44-0	<2	N/A	3,5 AS Carbon Black
Manganese (Mn)	7439-96-5	<2	5	5 (Dust Ceiling)
Bismuth (Bi)	7440-69-9	<1	N/A	N/A
Chrome (Cr)	7440-47-3	<1	1 (Cr. & insol. salts)	.5
Cuivre (Cu)	7440-50-8	<1	0,2	1 (Dust & Mist)
Molybdenum (Mo)	7439-98-7	<1	5	10 (insol. salts)
Nickel (Ni)	7440-02-0	<1	1.0	1,0
Niobium (Nb)	7440-03-1	<1	N/A	N/A
Phosphore (P)	7723-14-0	<1	0,1 (as yellow Phos.)	N/A
Silice (Si)	7440-21-3	<1	15 Dust	10 Total Dust
Souffre (S)	7704-34-9	<1	13 (as SO ₂)	5 (as SO ₂)
Vanadium (V)	7440-62-2	<1	0,05 (V ₂ O ₅ dust & fume)	0,5 (V ₂ O ₅) dust & fume)
Metallic Coating Chromium (Cr)	7440-47-3	>98	1 (Cr. & insol. salts)	0,5

NOTE: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts. No permissible exposure limits (PEL) or thresholds limit values (TLV) exist for steel. Values shown are applicable to component elements.

II. PHYSICAL DATA

MATERIAL IS (At Normal Conditions) <input type="checkbox"/> LIQUID <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> GAS <input type="checkbox"/> OTHER	Apparence et odeur : D'apparence solide avec odeur metallique	% VOLATILE BY VOLUME: N/A	VAPOR DENSITY N/A
ACIDITY/ALKALINITY pH = N/A	Point de fusion : Greater than 1600 °F Boiling Point N/A °F	Specific Gravity (H ₂ O = 1) Approx. 7 Solubilité dans l'eau : (% by weight) N/A	VAPOR PRESSURE (mm Hg at 20°C) N/A

III. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION Appropriate dust/mist/fume respirator should be used to avoid excessive inhalation of particulates. If exposure limits are reached or exceeded, use NIOSH approved equipment.	HANDS, ARMS AND BODY Appropriate gloves should be worn as required for welding, burning or handling operations.
EYES AND FACE Safety glasses should be worn when grinding or cutting. Face shields should be worn when welding or cutting.	OTHER CLOTHING AND EQUIPMENT As required depending on operations and safety codes.

IV. EMERGENCY MEDICAL PROCEDURES

INHALATION: EYE CONTACT: SKIN CONTACT: INGESTION:	Remove to fresh air; if condition continues, consult a physician. Flush thoroughly with running water to remove particulate; obtain medical attention. Remove particles by washing thoroughly with soap and water. Seek medical attention if condition persists. If significant amounts of metal are ingested, consult physician.
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V. HEALTH/SAFETY INFORMATION

Health	<p>Steel products in their solid state present no inhalation, ingestion, or contact health hazard. Operations such as burning, welding, sawing, grinding, and machining, which result in elevating the temperature of the product to, or above its melting point, or result in the generation of airborne particulates may present hazards. The major exposure hazard is inhalation. Effects or overexposure to fume and dust are as follows:</p> <p>ACUTE: Excessive inhalation of metallic fumes and dust may result in irritation of eyes, nose and throat. High concentrations of fumes and dusts of iron-oxide, manganese, copper, zinc and lead may result in metal fume fever. Typical symptoms last from 12 to 48 hours and consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever.</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:</p> <ul style="list-style-type: none">Aluminum: May initiate fibrotic changes to lung tissueBismuth: No chronic debilitating symptoms indicatedChromium: Lesions of the skin and mucous membranes, possibly cancer of the nose or lungs-bronchogenic carcinomaCopper: No chronic debilitating symptoms indicatedIron: Siderosis, pulmonary effects. No chronic debilitating symptoms indicatedManganese: Bronchitis, pneumonitis, lack of coordinationMolybdenum: Respiratory tract irritation, possible liver and kidney damage, bone deformityNickel: Lesions of the skin and mucous membranes, possibly cancer of the nose or lungs-bronchogenic carcinomaPhosphorous: Necrosis of the mandibleSulfur: (As sulfur dioxide) Edema of the lungsVanadium: (As vanadium pentoxide) Emphysema, pneumonia <p>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with chronic respiratory disorders (ie.: asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure.</p> <p>OCCUPATIONAL EXPOSURE LIMITES: See Product Ingredients Section I. Chromium and Nickel have been identified by the International Agency for Research on Cancer (IARC) and/or the National Logy Program (NTP) as potential cancer causing agents.</p>			
	Point éclair :	Température d'autoinflammation :	Limites d'inflammabilité :	Moyens d'extinction :
	NA	N/A	Basse : N/A Haute : N/A	For Molten metal use dry powder or sand.
Fire and Explosion	FIRE AND EXPLOSION HAZARDS Steel tubular products do not present fire or explosion hazards under normal conditions. Fine metal particles such as produced in grinding or sawing can burn. High concentrations of metallic fines in the air may present an explosion hazard.		EXTINGUISHING MEDIA NOT TO BE USED Do not use water on molten metal.	
	STABILITÉ CHIMIQUE : ■ Oui □ Non	INCOMPATIBILITÉ AVEC D'AUTRES SUBSTANCES : Acides durs Oxydants durs		
Reactivity	CONDITIONS À ÉVITER : Steel at temperatures above the melting point may liberate fume containing oxides of iron and alloying elements. Avoid generation of airborne fume and dust.			
	HAZARDOUS DECOMPOSITION PRODUCTS: Metallic dust or fumes may be produced during welding, burning, grinding and possibly machining. Refer to ANSI Z49.1.			

VI. ENVIRONMENTAL

SPILL OR LEAK PROCEDURES Fine turnings and small chips should be swept or vacuumed. Scrap metal can be reclaimed for reuse.
WASTE DISPOSAL METHOD* Used or unused product should be disposed of in accordance with Federal, State or Local Laws and Regulations. *Disposer must comply with Federal, State and Local disposal or discharge laws.

VII. ADDITIONAL INFORMATION

<p>In welding, precautions should be taken for airborne contaminants which may originate from components of the welding rod.</p> <p>Arc or spark generated when welding or burning could be a source of ignition for combustion and flammable materials.</p>
<p style="text-align: center;">DISCLAIMER</p> <p>The information in this MSDS was obtained from sources which we believe are reliable, however, the information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness.</p> <p>The Conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.</p>