

SECTION I-PRODUCT IDENTIFICATION

MATERIAL	COLD ROLLED SHEET STEEL
SYNONYMS	Cold Rolled,Carbon Sheet Steel ,CR
MANUFACTURER	Borçelik Çelik Sanayii Ticaret A.Ş. / Gemlik-BURSA TURKEY
	90 224-280 40 00 MATERIAL USE Manufacture of steel products

SECTION II-HAZARDOUS INGREDIENTS (1) STEEL (2) COATING (3) SURFACE TREATMENTS

HAZARDOUS INGREDIENTS	%WT.	CAS NO.	LD ₅₀	EXPOSURE LIMIT (mg/m ³)
(1) Steel :				
Iron (Fe)	~ 95	7439-89-6	30 g/kg (rat-oral)	5 (Fume)
Manganese (Mn)	≤ 2.0	7439-96-5	9 g/kg (rat-oral)	1 (Fume)
Chromium (Cr)	≤ 1.25	7440-47-3	U	0,5
Nickel (Ni)	≤ 0.75	7440-02-0	U	1
Lead (Pb)	< 0,003	7439-92-1	U	0,15
Mercury (Hg)	< 0,001	7439-97-6	U	0,1
Cadmium (Cd)	< 0,001	7440-43-0	225 mg/kg (rat-oral)	0,05
Hexavalent Chromium (Cr ⁶⁺)	< 0,001	N.A.	U	0,05

(Other metals are also present in trace amounts below WHMIS cut- offs)

(2) Coating (No coatings applied)**(3) Surface Treatments:(constitute less than 0,15 % of total steel weight)****a-Oils (Ferrocoat N 6888 LV , SRP 109)**

Mineral oil with additives

Oil Coating weights range from 0,25 to 3 g/m² per side.

b-Wet temper fluid (QWERL N-275-2)

A 5.0 % solution in water

NOTE:

Supplier MSDS on the surface treatment oils are available. They can be obtained on written request to our Customer Service Department.

Borçelik Çelik Sanayii Ticaret A.Ş. products do not contain and are not manufactured with any Class I or Class II ozone depleting substances.

Legend: U=Unkown , N.A.=Not Applicable

PREPARATION DATA

Prepared by Borçelik Çelik San.Tic. A.ş.	PHONE 90 224 280 40 00	FAX 90 224 519 01 30	DATE 25.03.2002	PAGE 1/2
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SECTION III- PHYSICAL DATA

Silver Grey Metallic Solid
 Boiling Pt.(°C) - N.A.
 Melting Pt. (°C) - 1530
 Specific Gravity - 7.5 to 8

SECTION IV- FIRE AND EXPLOSION DATA

Non-Flammable - will not support combustion

SECTION V- REACTIVITY DATA

Stable : Contact with strong acids will release flammable hydrogen gas

SECTION VI- TOXICOLOGICAL PROPERTIES**ROUTE OF ENTRY**

None in its natural state. Operations such as welding, burning, grinding or machining may pose acute or chronic inhalation health effects.

EFFECTS OF ACUTE EXPOSURE

None to sheet steel. Welding, burning, grinding or machining can generate metal particulate or elemental oxide fumes. Inhalation overexposure to manganese has been reported to cause "metal fume fever" characterized by fever and chills (ie flu-like symptoms). Such an overexposure is unlikely due to the small amount of manganese available.

Fumes or mist of surface treatment oils may irritate the eyes and upper respiratory tract, and cause headache, dizziness and/or nausea if exposure is excessive. Repeated or prolonged contact to oils may cause skin irritation and dermatitis.

EFFECTS OF CHRONIC EXPOSURE

None to sheet steel. Chronic inhalation overexposure to metal fume (ie. Iron oxide fume) may cause a benign pneumoconiosis (ie. Siderosis) with few or no symptoms.

IRRITANCY

Carcinogenicity, Reproductive, Teratogenicity, Mutagenicity effects
 Chromium&Nickel (see additional information)

SYNERGISTIC MATERIALS

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SECTION VII- PREVENTIVE MEASURES

Dependent upon the process being performed on the material. Each operation must be addressed for suitable personal protective equipment required.

General ventilation is normally adequate.

Welding requires local exhaust ventilation or fume filter respirator, gloves and eyewear.

Avoid prolonged/repeated skin contact. Use oil impervious gloves if required to prevent contact.

Avoid eye contact with oil contaminated hands.

SECTION VIII- FIRST AID MEASURES

Eyes - Flush with water

Skin - Wash contact areas with soap and water

Inhalation- For overexposure to metal fume, remove person to fresh air

Seek medical attention

ADDITIONAL INFORMATION

ARC lists certain hexavalent chromium compounds under its group 1-"Confirmed human Carcinogen"

ARC lists certain nickel compounds under its Group 2A-"Suspected Human Carcinogen"

Nitrosamines may be formed due to a reaction between nitrites and amines, of which some are suspected human carcinogens.

Oil coatings should be removed prior to welding or grinding to minimize smoke generation.

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