

MILD STEEL
(R.R.B.M.)

NIOSH Pocket Guide to Chemical Hazards

Chromium metal		CAS 7440-47-3	
Cr		RTECS GB4200000	
Synonyms & Trade Names Chrome, Chromium		DOT ID & Guide	
Exposure Limits	NIOSH REL: TWA 0.5 mg/m ³ See Appendix C		
	OSHA PEL*: TWA 1 mg/m ³ See Appendix C [*Note: The PEL also applies to insoluble chromium salts.]		
IDLH 250 mg/m ³ (as Cr)		Conversion	
Physical Description Blue-white to steel-gray, lustrous, brittle, hard, odorless solid.			
MW: 52.0	BP: 4788°F	MLT: 3452°F	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 7.14
Fl.P: NA	UEL: NA	LEL: NA	
Noncombustible Solid in bulk form, but finely divided dust burns rapidly if heated in a flame.			
Incompatibilities & Reactivities Strong oxidizers (such as hydrogen peroxide), alkalis			
Measurement Methods NIOSH 7024; OSHA ID121, ID125G			
Personal Protection & Sanitation Skin: No recommendation Eyes: No recommendation Wash skin: No recommendation Remove: No recommendation Change: No recommendation		First Aid (See procedures) Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately	
Respirator Recommendations NIOSH Up to 2.5 mg/m ³ : (APF = 5) Any dust and mist respirator* Up to 5 mg/m ³ : (APF = 10) Any dust and mist respirator except single-use and quarter-mask respirators*/ (APF = 10) Any supplied-air respirator* Up to 12.5 mg/m ³ : (APF = 25) Any supplied-air respirator operated in a continuous-flow mode*/(APF = 25) Any powered, air-purifying respirator with a dust and mist filter* Up to 25 mg/m ³ : (APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/(APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter*/(APF = 50) Any self-contained breathing apparatus with a full facepiece/(APF = 50) Any supplied-air respirator with a full facepiece Up to 250 mg/m ³ : (APF = 2000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode Emergency or planned entry into unknown concentrations or IDLH conditions: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other			

positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus

Escape: (APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus

Exposure Routes inhalation, ingestion, skin and/or eye contact

Symptoms Irritation eyes, skin; lung fibrosis (histologic)

Target Organs Eyes, skin, respiratory system

See also: **INTRODUCTION**