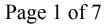
Precision Brand Music Wire: Carbon Steel





Precision Brand Music Wire Available in 2 material grades

Carbon Steel; C1085
 Stainless Steel: Type 302

Both materials are suitable for the following applications:

Springs, wire forms, control linkages, armature binding, ceramic cutting and a variety of industrial uses

The stainless steel grade offers the additional feature of being corrosion resistant

Steel Music Wire in 1 lb Rolls

Code	Diameter	Diameter	Tensile	Approx.	Packed	W mm	H mm	L mm
	Inch	Metric	Strength ksi	Length	Weight			
			Max – Min	Feet per	Kilos			
				Pound				
77-221-014	0.014	0.356	369-404	1911	0.495	125	25	125
77-221-016	0.016	0.406	362-392	1464	0.495	125	25	125
77-221-018	0.018	0.457	356-386	1156	0.495	125	25	125
77-221-020	0.020	0.508	350-380	937	0.495	125	25	125
77-221-022	0.022	0.559	345-375	774	0.495	125	25	125
77-221-024	0.024	0.610	341-371	651	0.495	125	25	125
77-221-026	0.026	0.660	337-367	555	0.495	125	25	125
77-221-029	0.029	0.737	333-363	446	0.495	125	25	125
77-221-031	0.031	0.787	330-360	390	0.495	125	25	125
77-221-033	0.033	0.838	327-357	344	0.495	125	25	125
77-221-035	0.035	0.889	324-354	306	0.495	125	25	125
77-221-039	0.039	0.991	318-348	247	0.495	125	25	125
77-221-041	0.041	1.041	315-345	223	0.495	125	25	125
77-221-063	0.063	1.600	293-323	95	0.495	125	25	125

Accuracy:

Material and Mechanical Properties:

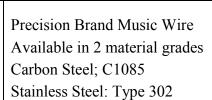
ASTM-A-228

Meets Specifications

Thickness	Tolerance	Ma	terial	Carbon Steel C1085
0.006" & 0.010"	±0.0002"	Cai	bon	0.66 - 1.04
0.011" & 0.026"	±0.0003"	Ma	nganese	0.17 - 0.63
0.029" & 0.063"	±0.0004"	Pho	osphorous	0.033Max.
0.029 & 0.003	_0.0001	Sul	phur	0.038Max.
		Sili	con	0.08 - 0.32
		Ter	nsile Strength	245 000 – 455 000 PSI

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Precision Brand Music Wire: Stainless Steel



Both materials are suitable for the following applications:

Springs, wire forms, control linkages, armature binding, ceramic cutting and a variety of industrial uses

The stainless steel grade offers the additional feature of being corrosion resistant

Stainless Steel Music Wire in 1 lb Rolls

Code	Diameter	Diameter	Tensile	Approx.	Packed	W mm	H mm	L mm
	Inch	Metric	Strength ksi	Length	Weight			
			Max – Min	Feet per	Kilos			
				Pound				
77-229-014	0.014	0.356	312-342	1284	0.495	125	25	125
77-229-016	0.016	0.406	308-338	983	0.495	125	25	125
77-229-018	0.018	0.457	304-334	776	0.495	125	25	125
77-229-020	0.020	0.508	300-330	629	0.495	125	25	125
77-229-022	0.022	0.559	296-326	520	0.495	125	25	125
77-229-024	0.024	0.610	292-322	437	0.495	125	25	125
77-229-026	0.026	0.660	291-320	372	0.495	125	25	125
77-229-029	0.029	0.737	285-315	300	0.495	125	25	125
77-229-031	0.031	0.787	285-315	262	0.495	125	25	125
77-229-033	0.033	0.838	282-310	231	0.495	125	25	125
77-221-035	0.035	0.889	280-308	206	0.495	125	25	125

Accuracy:

Thickness	Tolerance
0.012" & 0.022"	±0.0004"
0.024" & 0.031"	±0.0005"
0.033" & 0.043"	±0.0008"

Material and Mechanical Properties:

Material	Stainless Steel: Type 302
Carbon	0.12Max.
Manganese	2.00 Max.
Phosphorous	0.045Max.
Sulphur	0.030Max.
Silicon	1.00Max.
Nickel	8.00 - 10.00
Chromium	17.00 – 19.00
Nitrogen	0.01Max.
Tensile Strength	194,000 – 355,000 PSI
Meets Specifications	ASTM-A-313
_	ASTM-A-555
	ASTM-A-580
	AMS-5688

Precision Brand Music Wire

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Material Safety Data Sheets



Material Safety Data Sheet

High carbon steel wire
Common Name

Music Wire 21

Identity (Trade Name As Used On Label) and Product Code

Manufacturer	Phone Number (For Information)
Precision Brand Products Inc.	630-969-7200
Address 2250 Curtiss Street Downers Grove IL 60515 USA	Emergency Phone Number Chemtrec 800-424-9300 USA & Canada 202-483-7616 International
Date Prepared: March 2005	Date Reviewed: May 2010

		CAS#	% Weight	The state of the s	le Exposure vels	Units
Base Metal:	Iron (Fe)	7439-89-6	95-99	As Iron Oxide F	ume	10 mg/M ³
Alloys:	Carbon (C)	7440-44-0	.01-1.1	None Listed		-
	Manganese (Mg)	7439-96-5	.25-1.65	As Manganese		5 mg/M ³
	Phosphorus (P)	7723-14-0	.04 Max	As Phosphorus (Yellow)		0.1 mg/M ³
	Silicon (Si)	7440-21-3	1.6 Max	None Listed		
	Sulfur (S)	7704-34-9	.001035	As Sulfur Dioxide		13 mg/M ⁸
	Vanadium (V)	7440-62-2	.0135	As Vanadium Fume		0.1 mg/M ³
				Pentoxide -	Dust	0.5 mg/M ³
	Chromium (Cr)	mium (Cr) 7440-47-3		As Soluble Chromic-Chromous Salts		0.5 mg/M ³
			.01-1.5	-Chrome & Inso	oluble Salts	1 mg/M ^a
Coatings:	Optional – Light surface coatings (less than 1% total weight of product) of Petroleum Oil, Phosphate, Borax, Lime or Dry Lubricants (Calcium or Sodium)					
Note:	Use gloves when handling to prevent skin irritation.					

SECTION 2 PHYSICAL	DATA		
BOILING POINT	NA	EVAPORATION RATE	NA
VAPOR PRESSURE	NA	AUTO IGNITION TEMP.	
VAPOR DENSITY	NA	APPEARANCE & ODOR	Gray-Black & odorless
SOLUBILITY IN WATER	NA	PHYSICAL STATE	Solid
SPECIFIC GRAVITY	7	рН	NA
% VOLATILE BY VOLUME	NA		

SECTION 3 -	EMERGENCY MEDICAL PROCEDURES
FIRST AID	In case of excessive exposure, remove to fresh air, administer oxygen, and seek physician's assistance.

Precision Brand Music Wire

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Material Safety Data Sheets

SECTION 4	- PERSONAL PI	ROTECT	ION ITEMS		
Respiratory		NIOSH a	pproved dust/mist/fume respirator if OSHA PEL is d.		
Protective C		D			
Gloves Eye Protecti			ng on use, consult local, state, and federal codes for		
	Requirements	appropriate selection.			
Other- As p	er welding require	nents			
SECTION 5	- HEALTH HAZA	RDDAT	Δ		
			resent an inhalation, ingestion, or contact hazard. However		
operations su	uch as burning, weld rmissible limits as lis	ing, sawin	g and grinding may result in the following effects exposures		
(■) Major Ex		nhalation ngestion	☐ Skin Contact ☐ Skin Absorption ☐ Eye Contact		
EFFECTS O	F OVEREXPOSURE				
	Iron (Iron-Oxide)	Irritation fever	Irritation of the eyes, nose, throat, metallic taste in mouth or metal fume fever		
ACUTE:	Manganese	Irritation of the eyes, nose, throat, metallic taste in mouth or metal fever			
	Vanadium	Irritant to conjunctivae and respiratory tract (greenish-black discolor of tongue and shortness of breath.)			
	Chromium	Irritant of eyes, nose, and lungs. Dermatitis.			
	Iron (Iron-Oxide)	- 10 Aug (1955)	ary effects, siderosis.		
	Manganese	Bronchitis, pneumonitis, lack of coordination			
CHRONIC:	Vanadium		orted cases of exposure to vanadium		
	Chromium	respirate Based of	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.		
SECTION S	FIDE AND EVOL	OCIONI	DATA		
Flash Point	: FIRE AND EXPL	OSION	NA		
Lower Explos	rive Limit		NA NA		
Upper Explos			NA NA		
Extinguishing	The state of the s		NA		
Special Fight	ing Precautions		NA		
SECTION 7	REACTIVITY H	AZARD	DATA		
STABLE			Yes		
INCOMPATI	BILITY		None		
			Metal Fume: Iron Oxide		
PRODUCTS OF DECOMPOSITION			Manganese		
			Vanadium Pentoxide		
			Chromium		

Date: 18-01-2011

Precision Brand Music Wire

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Material Safety Data Sheets

Precision Brand Products, Inc.
MSDS – Music Wire (Product code 21)

SECTION 8 - SPILL/LI	EAK PROCEDURES			
CLEAN UP	NA NA			
WASTE DISPOSAL	NA NA			

SECTION 9 - SPECIAL I	PRECAUTIONS
HANDLING STORAGE	NA NA
WELDING & CUTTING	Adequate ventilation and/or approved respiratory protection should be provided in PEL is extended.
OTHER PRECAUTIONS	NA NA

NOTE: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Precision Brand Products, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular period. Accordingly, Precision Brand Products, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HEREUNDER TO WHICH THE INFORMATION REFERS. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.

Precision Brand Music Wire

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Material Safety Data Sheets



MATERIAL SAFETY DATA SHEET

Stainless Steel Wire (Type 302/304)	29
Identity (Trade Name As Used On Label) and Product Co	de

Manufacturer Precision Brand Products Inc.	Phone Number (For Information) 630-969-7200
Address 2250 Curtiss Street Downers Grove IL 60515 USA	Emergency Phone Number Chemtrec 800-424-9300 USA & Canada 202-483-7616 International
Date Prepared: 02/09/2005	Date Reviewed: 05/01/2010

SECTION 1 – COMPOSITION / INFORMATION ON INGREDIENTS				
Base Metal:	Iron (Fe)	Balance		
	Carbon (C)	0.08 Max	Silicon (Si)	1.00 Max
	Manganese (Mg)	2.00 Max	Phosphorous (P)	0.040 Max
Alloys:	Sulfur (S)	0.030 Max	Nickel (Ni)	8.00-9.50
	Chromium (Cr)	18.00-19.00	Nitrogen (N)	0.10 Max
	Molybdenum (Mo)	0.75 Max	Copper (Cu)	0.75 Max
Surface	Coating	Ni & Sulfate (Na, K), Sulfate (Na, K)		
Coating:	Lubricant	Stearate (Ca,Na)		

SECTION 2 PHYSICAL DATA	
PHYSICAL STATE	Solid
APPEARANCE & ODOR	Metal Grey, Odorless
MELTING POINT/BOILING POINT	NA

SECTION 3 – PERSONAL PROTECTION INFORMATION		
Respiratory Protection	NIOSH/MSHA approved dust and fume respirator should be used if OSHA PEL is exceeded.	
Hands, Arms, Body, Eyes, Face Protection	Use appropriate protective clothing, face shield when welding, burning, or grinding.	

SECTION 4 – EMERGENCY MEDICAL PROCEDURES	
FIRST AID	In case of excessive exposure to fumes or particulate, remove exposed person to fresh air, and if necessary, administer oxygen and seek physician's assistance.

SECTION 5 – SAFETY INFORMATION	
Fire & Explosion	Steel products in the solid state present no fire or explosion hazard unless it is particulate or exposed in excessive oxygen.
Reactivity	Stable under normal conditions

Date: 18-01-2011

Precision Brand Music Wire

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Material Safety Data Sheets

Precision Brand Products, Inc.

MSDS – Stainless Steel Wire (Product code 29)

SECTION 6 – SPILL LEAK AND DISPOSAL PROCEDURES	
SPILL AND LEAK	N/A to steel products in the solid state
DISPOSAL	N/A

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