

Precision Brand Music Wire: Carbon Steel

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Precision Brand Music Wire
Available in 2 material grades
1 Carbon Steel; C1085
2 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 Inch	Diameter Metric	Tensile Strength ksi Max – Min	Approx. Length Feet per Pound	Packed Weight Kilos	W mm	H mm	L mm
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:

Thickness	Tolerance
0.006" & 0.010"	±0.0002"
0.011" & 0.026"	±0.0003"
0.029" & 0.063"	±0.0004"

Material	Carbon Steel C1085
Carbon	0.66 – 1.04
Manganese	0.17 – 0.63
Phosphorous	0.033Max.
Sulphur	0.038Max.
Silicon	0.08 – 0.32
Tensile Strength	245,000 – 455,000 PSI
Meets Specifications	ASTM-A-228

Precision Brand Music Wire: Stainless Steel

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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

Stainless Steel Music Wire in 1 lb Rolls

Code	Diameter Inch	Diameter Metric	Tensile Strength ksi Max – Min	Approx. Length Feet per Pound	Packed Weight Kilos	W mm	H mm	L mm
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:

Material and Mechanical Properties:

Thickness	Tolerance	Material	Stainless Steel: Type 302
0.012" & 0.022"	±0.0004"	Carbon	0.12Max.
0.024" & 0.031"	±0.0005"	Manganese	2.00 Max.
0.033" & 0.043"	±0.0008"	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



Material Safety Data Sheet

High carbon steel wire

Common Name

Music Wire

21

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

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 : March 2005	Date Reviewed: May 2010

SECTION 1 – COMPOSITION / INFORMATION ON INGREDIENTS

		CAS #	% Weight	Permissible Exposure Levels	Units
Base Metal:	Iron (Fe)	7439-89-6	95-99	As Iron Oxide Fume	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	.001-.035	As Sulfur Dioxide	13 mg/M ³
	Vanadium (V)	7440-62-2	.01-.35	As Vanadium Pentoxide – Fume	0.1 mg/M ³
	Chromium (Cr)	7440-47-3	.01-1.5	Dust	0.5 mg/M ³
				As Soluble Chromic-Chromous Salts	0.5 mg/M ³
				-Chrome & Insoluble Salts	1 mg/M ³
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	pH	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.
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Precision Brand Music Wire

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Material Safety Data Sheets

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

SECTION 4 – PERSONAL PROTECTION ITEMS

Respiratory Protection	NIOSH approved dust/mist/fume respirator if OSHA PEL is exceeded.
Protective Clothing	Depending on use, consult local, state, and federal codes for appropriate selection.
Gloves	
Eye Protection	
Ventilation Requirements	
Other- As per welding requirements	

SECTION 5 – HEALTH HAZARD DATA

Steel products in the natural state do not present an inhalation, ingestion, or contact hazard. However operations such as burning, welding, sawing and grinding may result in the following effects exposures exceeded permissible limits as listed in Section 1.

(■) Major Exposure Hazard - ■ Inhalation □ Skin Contact □ Skin Absorption □ Eye Contact
□ Ingestion

EFFECTS OF OVEREXPOSURE

ACUTE:	Iron (Iron-Oxide)	Irritation of the eyes, nose, throat, metallic taste in mouth or metal fume fever
	Manganese	Irritation of the eyes, nose, throat, metallic taste in mouth or metal fume fever
	Vanadium	Irritant to conjunctivae and respiratory tract (greenish-black discoloration of tongue and shortness of breath.)
	Chromium	Irritant of eyes, nose, and lungs. Dermatitis.
CHRONIC:	Iron (Iron-Oxide)	Pulmonary effects, siderosis.
	Manganese	Bronchitis, pneumonitis, lack of coordination
	Vanadium	No reported cases of exposure to vanadium
	Chromium	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 6: FIRE AND EXPLOSION DATA

Flash Point	NA
Lower Explosive Limit	NA
Upper Explosive Limit	NA
Extinguishing Media	NA
Special Fighting Precautions	NA

SECTION 7 -- REACTIVITY HAZARD DATA

STABLE	Yes
INCOMPATIBILITY	None
PRODUCTS OF DECOMPOSITION	Metal Fume: Iron Oxide
	Manganese
	Vanadium Pentoxide
	Chromium

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

SECTION 8 – SPILL/LEAK PROCEDURES

CLEAN UP	NA
WASTE DISPOSAL	NA

SECTION 9 – SPECIAL PRECAUTIONS

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



MATERIAL SAFETY DATA SHEET

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

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		
Alloys:	Carbon (C)	0.08 Max	Silicon (Si)	1.00 Max
	Manganese (Mg)	2.00 Max	Phosphorous (P)	0.040 Max
	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:	Coating	Ni & Sulfate (Na, K), Sulfate (Na, K)		
	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.
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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

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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