

## SAFETY DATA SHEET: Stainless Steel

### Section I – IDENTIFICATION

<b>Product Name:</b>	<p>Stainless Steel Brackets; Tip-Edge® Metal brackets, Advant-Edge®, Twin-Edge®, Straight-Edge® / Other Brackets; Nu-Edge® Cast (Pad only, for Bracket see CoCr SDS), PLUS SL (Pad only, for Bracket and Gate see CoCr SDS) / Stainless Steel Molar Tubes; Single, Double, Convertible, Combination (Bracket and pads only, for solder see Brazing Alloy SDS) / Lingual Attachments; One-Piece Lingual Button, Bondable Lingual Button, Molar Cleat, Cleat-Lug, Ball-End Lingual hook, Bondable Lingual hook, Seating Lug-Hook, Lingual Cleat, Bondable Lingual Cleat, Lingual Molar Sheath / Molar Bands; GripTite®, Pre-Fit® / Stainless Steel Wires; Shiny Bright Aesthetic wire(wire only, for coating see Teflon coating SDS), Bow-Flex, TP Original, Shiny Bright, Rounded Rectangular, Co-Ax®, Pre-Cut Co-Ax®, Woven 8-Strand Wire, Tip-Edge® Looped, Tip-Edge®, Pretorqued, Ligature Ties, Kobayashi Ligature Ties, Ligature Wire / Crimpable Hook; Ribbed, Aesthetic Ribbed(hook only, for coating see Teflon coating SDS), Coated(hook only, for coating see Tungsten Carbide SDS), Aesthetic Coated(hook only, for coating see Tungsten Carbide SDS and Teflon coating SDS) / Crimpable Stop / Aesthetic Crimpable Stop(Stop only, for coating see Teflon coating SDS) / Solderable Stop / Round Traction Hooks / Rumely Traction Hook (Only for Pad, for Plating See Gold SDS, for chain see Brass SDS) / Outrigger® (Outrigger® only, for ligature see Polyurethane SDS) / Palatal Arch Bars / Power Hook / Bi-Level Pin / Power Pin / Individual Root Torque / Rotating Spring / Uprighting Spring; Standard, Original Side-Winder, Invisible Side-Winder, Plain / Closed Coil Spring (eyelets only, for spring see Nitinol SDS) / Self-Locking Separating Spring / Lip Bumper / Lip Bumper with Pads (Wire only, for Pad see Polypropylene SDS) / Vektor Pro(tube only, for spring see Nitinol SDS) / Archwire Lock / Flip-Lock® Herbst® / Preformed Lingual Retainers / Labial Trauma Splint / Perio Bond-A Bar / Lingual Bond-A-Splint® / Instruments; Pliers, Pliers with insert (Plier only, for insert see Carbide SDS) / Hyrax appliance ( Body only, for Contoured Lingual see Polypropylene SDS, for solder see Brazing Alloy SDS)</p>
<b>Common Name:</b>	Orthodontic Brackets, Wire, Springs, Attachments, Auxiliaries, instruments, and Appliances
<b>Material:</b>	Stainless Steel Alloy (Austenitic, Ferritic, Precipitation Hardening, Martensitic)
<b>Recommended Use:</b>	TP Orthodontics' products are intended for use in orthodontic treatment.
<b>Restrictions on Use:</b>	TP Orthodontics' products are intended for use by trained dental professionals and orthodontists, who have the primary responsibility to identify any possible contraindications that may preclude the use of this product. U.S. Federal law restricts this device to sale by or on the order of a dental professional.
<b>Product Manufacturer:</b>	<p>TP Orthodontics, Inc.  100 Center Plaza  La Porte, IN 46350-9672 USA  Phone: 800-348-8856  Hours: M-Th 7a-4:30p  Fax: 219-324-3029</p>

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Internet: [www.tportho.com](http://www.tportho.com)

**Emergency Number:** 800-348-8856  
Available during normal business hours: Monday-Thursday 7am to 5pm CST and  
Friday 7am to 12pm CST

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**Section II – HAZARD IDENTIFICATION**

**General Hazard Statement:** As per OSHA Regulation 29 CFR 1910.1200, specialty steel alloys are classified as articles and do not constitute a hazardous material in their solid form. The products covered by this document are manufactured items which are assembled to a specific shape and design and are generally classified as non-hazardous in their shipped form.

This product is considered an article and does not release or otherwise result in exposure to a hazardous material under normal use conditions. However, some hazardous elements contained in these products may be emitted under certain processing conditions such as grinding, burning, welding, cutting, melting, brazing, or machining. The first-aid and fire-fighting measures below are for hazardous materials which may be emitted during processing. Products in their solid form do not present a fire or explosion hazard.

**Section III – COMPOSITION/ INFORMATION ON INGREDIENTS**

**Mixtures: \***

Ingredient(s)	CAS No.	EC No.	Wt. %
Iron	7439-89-6	N/A	Balance
Chromium	7440-47-3	231-157-5	16.0% - 20.0%
Molybdenum	7439-98-7	231-107-2	0.0% - 3.0%
Nickel	7440-02-0	231-111-4	6.5% - 14.0%
Manganese	7439-96-5	N/A	Max 2.0%
Carbon	7440-44-0	231-153-3	Max 0.15%
Silicon	7440-21-3	231-130-8	Max 1.0%
Aluminum	7429-90-5	231-072-3	0.0% - 1.5%

*\*No minor components need to be disclosed according to the applicable regulations.*

**Section IV – FIRST-AID MEASURES**

<b>Skin:</b>	Wash skin with soap and water, if rash develops, seek medical attention.
<b>Eyes:</b>	Flush with plenty of water for 15 minutes; seek medical attention if irritation persists.
<b>Ingestion:</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately. Drink plenty of water. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	Move into fresh air. If breathing difficulty occurs, get prompt medical attention.

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**Section V – FIRE-FIGHTING MEASURES**

**Flash Point and Method:** NA

**Flammability Limits:** NA

**Auto-ignition Temperature:** NA

**Melting Point:** 2400 – 2800 degrees F

**General Hazard:** Not combustible in the shipped form

**Firefighting Instructions:** No special instructions for product shipped

**Firefighting Equipment:** No special equipment for product as shipped

**Combustion Products:** No hazardous decomposition products are expected

**Section VI – ACCIDENTAL RELEASE MEASURES**

**General:** If accidentally released, gather product and store properly. As shipped the product does not pose a hazard to the environment.

**Section VII - HANDLING AND STORAGE**

**Storage Temperature:** No special requirement.

**Storage Pressure:** Not applicable

**General Storage:** Store away from acids, bases, and oxidizers.

**Section VIII – EXPOSURE CONTROLS/ PERSONAL PROTECTION****Personal Protection Equipment**

**Eyes:** Safety glasses recommended. If grinding steel, a face shield is also recommended.

**Skin:** Gloves recommended when handling steel.

The use of local exhaust ventilation is recommended to control emission near the source of metal being cut, ground welded or melted.

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**Section IX – PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Gray in color
<b>Odor</b>	Odorless
<b>Physical State</b>	Solid
<b>pH</b>	N/A
<b>Melting/Boiling Point</b>	MP: 2400-2800°F
<b>Flash Point</b>	N/A
<b>Evaporation Rate</b>	N/A
<b>Flammability</b>	Nonflammable
<b>Vapor Pressure</b>	N/A
<b>Vapor Density</b>	N/A
<b>Relative Density</b>	N/A
<b>Solubility in water</b>	Insoluble
<b>Auto-ignition Temp</b>	N/A
<b>Decomposition Temp</b>	N/A
<b>Viscosity</b>	NA

**Section X – STABILITY AND REACTIVITY**

**Stability:** Product is Stable and hazard polymerization will not occur.

**Reactivity:** None for the product as shipped.

**Incompatible Material:** Acids, bases, and oxidizers.

**Section XI – TOXICOLOGICAL INFORMATION**

Steel alloy fumes and dust toxicological information is not applicable for this manufactured item in its shipping form.

**Section XII – ECOLOGICAL INFORMATION**

There is no data available.

**Section XIII – DISPOSAL CONSIDERATIONS**

**General:** Recycling of all metallic byproducts as scrap is strongly encouraged. If byproducts need to be treated and/or disposed of as wastes, hazardous wastes characterizations must be performed prior to treating and \or disposing. Contact appropriate parties to ensure compliance with all federal, state and local rules and regulations related to waste treatment and disposal.

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**Section XIV – TRANSPORTATION INFORMATION**

Not regulated by DOT.

**Section XV – REGULATORY INFORMATION**

TSCA (Toxic Substances Control Act):

Not Applicable

CERCLA (Comprehensive Response & Liability Act):

Not Applicable

SARA Title III (Superfund Amendments & Reauthorization Act):

311/312 Hazardous Categories – not applicable for storage of items as shipped, however if processed, end product may require reporting.

313 Product Ingredients – subject to reporting requirements may include: chromium, nickel, manganese, cobalt, copper, vanadium, titanium, or aluminum.

California Safe Drinking Water Act (Prop 65) listing:

COMPONENT	CAS NUMBER
NICKEL	7440-02-0
COBALT	7440-48-4

This product is manufactured using Good Manufacturing Practices and are regulated as Class I Medical Device by The US Food and Drug Administration, Class II by Health Canada and Class IIa by the European Community.

**Section XVI – OTHER INFORMATION**

All the information is collected from Supplier certificate of analysis, manufacturing process, technical files and known history from 70 years of experience and is believed to be correct as of the date issued.

By supplying above information, TP Orthodontics, Inc. assumes no legal responsibility of any kind for the accuracy, completeness, or use of the data supplied as well as the product mentioned in the foreclosure