

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Name of Manufacturer:

Inman Orthodontic Laboratories Inc
3953 NW 126 Ave Coral Springs FL 33065
800-289-0118 954-340-8477

Product Name: Inman Power Component
Product Number: IPC

Effective Date: 10/01/2013

SECTION 2. HAZARDOUS IDENTIFICATION

Potential Health Effects:

Primary Routes of Entry

- Inhalation
- Skin Contact
- Eye Contact
- Ingestion

Medical Conditions Aggravated by Exposure

- None Known

Human Effects and Symptoms of Overexposure:

No toxic effects are expected from the alloy in the inert solid form. Excessive inhalation of fumes or dusts from burning, welding, grinding, and cutting can produce an acute reaction known as metal fume fever. However, studies of workers melting or working alloys containing these elements have been found to have no increased risk of cancer.

Carcinogenicity

Nickel and Chromium must be considered possible carcinogens under OSHA 29.

Carcinogenicity

Nickel and Chromium must be considered possible carcinogens under OSHA 29.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

The Occupational Health and Safety Administration (OSHA) publish Permissible Exposure Limits (PEL) and the American Chemical Governmental Industrial Hygienists (ACGIH) publishes Threshold Limit Values (TLV) for stainless steels. Values shown below are applicable to major component elements. These elements may appear in some or various combinations in any particular grade of stainless steel.

*See attached

SECTION 4. FIRST AID MEASURES

Eye Contact

If eyes become irritated from dust or fumes, wash with large quantities of water. Seek medical attention when necessary.

Skin Contact

If irritation develops, remove contaminated clothing immediately and wash the contaminated skin with soap and water. Seek medical attention if irritation persists.

Inhalation

Seek medical attention if necessary.

Ingestion

See medical attention when necessary.

SECTION 5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media

None

Special Fire Fighting Procedures

None

Unusual Fire / Explosion Hazards

Stainless Steel Products in the form shipped are not considered combustible. During subsequent processing (cutting, welding, grinding, etc.), the generation of dust in high concentration may present fire and explosion hazards.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill and Leak Procedures

Not Applicable

SECTION 7. HANDLING & STORAGE

Handling / Storage Precautions

Not applicable

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Industrial Hygiene / Ventilation Measures

Adequate ventilation is required when welding, cutting, grinding, or burning this product.

Respiratory Protection

Dust / fume respirators are required if the fume levels exceed TLV values.

Additional Protective Measures

None

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

Form – Solid

Odor – Odorless

Melting Point – 2500 °F – 2800 °F

Density – .28 lb / inch³

Solubility in Water – Insoluble

Not applicable – Flash Point, Boiling Point, Vapor Pressure, Vapor Density, Evaporation, % Volatiles by Volume

SECTION 10. STABILITY & REACTIVITY

Hazardous Reactions – Hazardous polymerization will not occur.

Stability – Stable

Materials to Avoid – Insoluble in water and alkalines, corrodes in acids and certain salts.

Conditions to Avoid – None

Hazardous Decomposition Products – Metal fumes

SECTION 11. TOXICOLOGICAL INFORMATION

Not applicable

SECTION 12. ECOLOGICAL INFORMATION (non-mandatory)

Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal Method

Solids – Recycle as scrap

Dusts – Dispose of dusts according to local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION (non-mandatory)

Not applicable

SECTION 15. REGULATORY INFORMATION (non-mandatory)

Not applicable

SECTION 16. OTHER INFORMATION (non-mandatory)

HMIS Rating:

- **Health** –
- **Flammability** –
- **Physical Hazard** –

0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

* = Chronic Health Hazard

Composition / Information On ingredients

| Hazardous Components | % | CAS# | OSHA PEL (mg/m ³) ¹ | ACGIH TLV (mg/m ³) |
|----------------------|-----------|-----------|--|--------------------------------|
| Carbon (C) | 0.055 | 7440-44-0 | 3.5 | 3.5 |
| Chromium (Cr) | 18.61 | 7440-47-3 | 1 | 1 |
| Copper (Cu) | 0.209 | 7440-50-8 | 1 | 1 |
| Iron (Fe) | Remainder | 7439-89-6 | - | - |
| Manganese (Mn) | 1.114 | 7439-96-5 | 5 | 5 |
| Molybdenum (Mo) | 0.073 | 7439-98-7 | 15 | 10 |
| Nickel (Ni) | 8.006 | 7440-02-0 | 1 | 1.5 |
| Silicon (Si) | 0.313 | 7440-21-3 | 10 ² | 10 |
| Sulfur (S) | 0.006 | 7704-34-9 | - | - |
| Phosphorus (P) | 0.036 | 7723-14-0 | 0.1 | 0.1 |

| | | |
|--------------|---------------------------|-----|
| Eye Contact | Unlikely in form supplied | N/A |
| Skin Contact | Unlikely in form supplied | N/A |
| Inhalation | Unlikely in form supplied | N/A |
| Ingestion | Unlikely in form supplied | N/A |

SECTION VII – SPECIAL PROTECTION INFORMATION

| | |
|---------------------------|---|
| Ventilation | General |
| Respiratory Protection | Required when cutting, grinding, or welding |
| Protective Gloves | Required when cutting, grinding, or welding |
| Eye Protection | Required when cutting, grinding, or welding |
| Work / Hygienic Practices | Follow standard laboratory safety practices |

SECTION VIII – SAFE HANDLING MEASURES

| | |
|--------------------------------|---|
| Precautions In Case Of Spill | Clean up |
| Waste Disposal Method | Dispose of in accordance with local, state, and federal regulations |
| Handling & Storage Precautions | None |

The information contained in the MSDS is believed to be valid and accurate. American Orthodontics, however, makes no warranty, either expressed or implied, as to the completeness of information in all possible conditions. **Reasonable safety precautions must always be observed.**

SECTION I – PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------------|----------------------------|
| Company Name | Emergency telephone number |
| American Orthodontics | (920) 457-5051 |
| 1714 Cambridge Ave | Telephone for information |
| Sheboygan Wisconsin 53081 | (920) 457-5051 |

Product Identification:

| | |
|----------------------------|---------------------|
| Product Name | Beta Titanium Wires |
| Common Name | Beta Titanium Alloy |
| Associated Catalog Numbers | Various |

SECTION II – HAZARDOUS COMPONENTS

| | | | | |
|----------------------------------|--------------------|-------------------|-----------------|------------------|
| Ingredients Considered Hazardous | <u>Common Name</u> | <u>CAS Number</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
| | Titanium (Ti) | 7440-32-6 | N/E | N/E |
| | Molybdenum (Mo) | 7439-98-7 | 15.0 | 10.0 |
| | Zirconium (Zr) | 7440-67-7 | 5.0 | 5.0 |
| | Tin (Sn) | 7440-31-5 | 2.0 | 2.0 |

N/E = None Established

SECTION III – PHYSICAL CHARACTERISTICS

| | |
|---------------------|-------------------|
| Boiling Point | >2000°C |
| Specific Gravity | 5.06 |
| Solubility in Water | Insoluble |
| Vapor Pressure | 0 at 100°C |
| Appearance | Silver-gray metal |
| Odor | Odorless |

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

| | |
|----------------------------------|-----|
| Extinguishing Media | N/A |
| Unusual Fire & Explosion Hazards | N/A |
| Special Fire Fighting Procedures | N/A |

SECTION V – REACTIVITY DATA

| | |
|----------------------------------|----------------|
| Reactivity | Stable |
| Incompatible Materials | None |
| Hazardous Decomposition Products | None |
| Hazardous Polymerization | Will Not Occur |

SECTION VI – HEALTH HAZARD DATA

| | |
|----------------------------------|------------|
| Acute Hazards | None known |
| Chronic Hazards | None known |
| Signs & Symptoms Of Overexposure | None known |

| | | |
|-------------------------|-----------------|--|
| <u>Routes of Entry:</u> | <u>Symptom:</u> | <u>Emergency / First Aid Procedures:</u> |
| Eye Contact | N/A | N/A |
| Skin Contact | N/A | N/A |
| Inhalation | N/A | N/A |
| Ingestion | N/A | N/A |

SECTION VII – SPECIAL PROTECTION INFORMATION

MATERIAL SAFETY DATA SHEET

Table of Contents

| | |
|---------------------------|---|
| Ventilation | Mechanical exhaust |
| Respiratory Protection | N/A |
| Protective Gloves | N/A |
| Eye Protection | N/A |
| Work / Hygienic Practices | Follow standard laboratory safety practices |

SECTION VIII – SAFE HANDLING MEASURES

| | |
|--------------------------------|--|
| Precautions In Case Of Spill | Clean up |
| Waste Disposal Method | Dispose of in accordance with local, state and federal regulations |
| Handling & Storage Precautions | None |

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SECTION I – PRODUCT AND COMPANY IDENTIFICATION

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| Company Name | Emergency telephone number |
| American Orthodontics | (920) 457-5051 |
| 1714 Cambridge Ave | Telephone for information |
| Sheboygan Wisconsin 53081 | (920) 457-5051 |
| Product Identification: | |
| Product Name | Nickel Titanium Wire, Jones Jig Spring, Jet Family Springs |
| Common Name | Nickel Titanium Wire Material |
| Associated Catalog Numbers | Various |

SECTION II – HAZARDOUS COMPONENTS

| | | | | |
|----------------------------------|--------------------|-------------------|---------------------|---------------------|
| Ingredients Considered Hazardous | <u>Common Name</u> | <u>CAS Number</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
| | Nickel | 7440-02-0 | 1 mg/m ³ | 1 mg/m ³ |

SECTION III – PHYSICAL CHARACTERISTICS

| | |
|---------------------|--------------------------|
| Boiling Point | High °C |
| Specific Gravity | 8.9 |
| Solubility in Water | Insoluble |
| Vapor Pressure | N/A at 100°C |
| Appearance | Solid metal in wire form |
| Odor | None |

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

| | |
|----------------------------------|-----|
| Extinguishing Media | N/A |
| Unusual Fire & Explosion Hazards | N/A |
| Special Fire Fighting Procedures | N/A |

SECTION V – REACTIVITY DATA

| | |
|----------------------------------|----------------|
| Reactivity | Stable |
| Incompatible Materials | None |
| Hazardous Decomposition Products | None |
| Hazardous Polymerization | Will Not Occur |

SECTION VI – HEALTH HAZARD DATA

| | |
|----------------------------------|---|
| Acute Hazards | May occur for special allergic or over-exposed people |
| Chronic Hazards | Nickel has been reported to cause cancer of the lungs and sinuses |
| Signs & Symptoms Of Overexposure | Unlikely in wire form. Irritation to affected areas, sneezing, metallic taste |

| | | |
|-------------------------|--|--|
| <u>Routes of Entry:</u> | <u>Symptom:</u> | <u>Emergency / First Aid Procedures:</u> |
| Eye Contact | Mechanical irritation | Consult a physician |
| Skin Contact | Dermatitis in sensitive people | Wash with water, consult a physician |
| Inhalation | N/A | N/A |
| Ingestion | Not likely. Irritation in sensitive people | Consult a physician |

SECTION VII – SPECIAL PROTECTION INFORMATION

| | |
|------------------------|--------------------|
| Ventilation | Mechanical exhaust |
| Respiratory Protection | N/A |

MATERIAL SAFETY DATA SHEET

Table of Contents

| | |
|---------------------------|---|
| Protective Gloves | May be used |
| Eye Protection | May be used |
| Work / Hygienic Practices | Follow standard laboratory safety practices |

SECTION VIII – SAFE HANDLING MEASURES

| | |
|--------------------------------|--|
| Precautions In Case Of Spill | N/A |
| Waste Disposal Method | Dispose of in accordance with local, state and federal regulations |
| Handling & Storage Precautions | None |

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