

**GRIPPER™ ETCHED CRIMPABLE STOPS AND HOOKS**

**1 – IDENTIFICATION**

**PRODUCT NAME:** Gripper™

**CHEMICAL NAME:** Stainless Steel

**TRADE NAME:** Stainless Steel 200, 300, 400 Series, 17-7, A286 and 21-6-9.

**COMPANY NAME:**

Ortho Specialties

3820 Ohio Avenue,; Suite 15

St. Charles, IL 60174 (630) 443-0225

**2 – HAZARDOUS INGREDIENTS**

COMPONENTS	%Weight	OSHA PEL-TWA	ACGIH TLV-TWA
<b>Iron(Fe)</b> (Iron Oxide) (7439-89-6)	60-88	5 (Fume)	5; A4 <sup>2</sup> (Dust & Fume)
<b>Chromium<sup>3</sup>(Cr)</b> (IMetal) (7440-47-3)	10-30	0.5 Metal	0.5; A4 (Metal)
<b>Nickel<sup>3</sup>(Ni)</b> (Metal) (7440-02-0)	0-27	1	1.5, A5
<b>Manganese<sup>3</sup>(Mn)</b> (Elemental & inorganic cpds) (7439-96-5)	0-10	1 C5 <sup>4</sup> (Fume)	0.2
<b>Molybdenum(Mo)</b> (7439-98-7)	<8	10 (Insoluable cpds Total dust)	10 (Insoluable cpds) NIC-3
<b>Copper<sup>3</sup>(Cu)</b> (7440-50-8)	<6	0.1 (Fume) 1 (Dust)	0.2 (Fume) 1 (Dust & Mist)
<b>Titanium(Ti)</b> (Titanium Dioxide) (13463-67-7)	<6	10 (Toatl dust)	10: A4
<b>Carbon(C)</b> (7440-44-0)	<2	N/A	N/A
<b>Aluminum(Al)</b> (74429-90-5)	<2	10 (Total dust) 5 (Resp. fraction)	10 (Metal oxide) 5 (Fume)
<b>Phosphorous(P)</b> (Yellow) (7723-14-0)	<2	0.1	0.1
<b>Sulfur(S)</b> (Sulfur Dioxide) (7746-09-5)	<.2	5	5.2, 13 STEL; A4
<b>Silicon(Si)</b> (7440-21-3)	<2	10 (Total Dust)	10
<b>Niobium(Nb)</b> (7740-03-1)	<2	N/A	N/A
<b>Tantalum(Ta)</b> (Metal & Oxide) (7440-03-1)	<2	5 (Dust) & (Oxide)	5 (Dusts)
<b>Tin(Sn)</b> (Metal) (7440-31-5)	<2	2	2
<b>Cobalt<sup>3</sup>(Co)</b> (Elemental & inorganic cpds) (7440-48-4)	<2	0.05 (Dust and fume)	0.02;A3 <sup>5</sup>
<b>Lead<sup>3</sup>(Pb)</b> (Elemental & inorganic cpds) (7439-92-1)	<.1	0.05	0.05; A3 <sup>5</sup>

<sup>1</sup> Percent of alloying element varies with grade.

<sup>2</sup> A4=Not classifiable as a human carcinogen.

<sup>3</sup> SARS, Title III, Section 313 Toxic Chemical.

<sup>4</sup> C=Ceiling limit not to be exceeded.

<sup>5</sup> A3=Animal Carcinogen.

Note: This MSDS was prepared in accordance with the requirements of the OSHA Haard Communication Standard (29 CFR 1910.1200) and is to be used only for this product. The information contained in this MSDS is, to the best of our knowledge, believed to be accurate.

**CONTACT CHEMTREC (800) 424-3900 IN CASE OF EMERGENCY**

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### 3 – HEALTH HAZARD DATA

**PRIMARY ROUTES OF ENTRY:** Inhalation of dust or fume. Extended exposure to iron dust or fume may result in signs of pneumoconiosis (i.e. siderosis). Physical examination of those exposed to iron dust have not indicated any disability.

**EMERGENCY AND FIRST AID PROCEDURE:** If irritation occurs, flush eyes, wash skin, remove to fresh air as applicable.

### 4 – PHYSICAL AND CHEMICAL PROPERTIES

<b>BOILING POINT (F°)</b>	N/A
<b>VAPOR PRESSURE:</b>	(mm Hg.): N/A
<b>VAPOR DENSITY:</b>	(Air=1.00) N/A
<b>SOLUBILITY IN WATER:</b>	N/A
<b>PERCENTAGE VOLATILE BY VOLUME:</b>	N/A
<b>PHYSICAL APPEARANCE:</b>	Grey with metallic lustre
<b>ODOR:</b>	N/A
<b>% VOLATILE BY VOLUME:</b>	N/A
<b>EVAPORATION RATE:</b>	N/A
<b>MELTING POINT:</b>	(Base Metal)>1600°F

### 5 – FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT:** (F°) N/A

**FLAMMABLE LIMITS:** N/A

**EXTINGUISHING MEDIA:** Use dry powder extinguishing agent.

**FIRE AND EXPLOSION HAZARD:**

1. Metal powder dispersed in the air may cause fire and explosion hazard.
2. Molten metal can ignite combustibles.
3. Good housekeeping must be maintained.

### 6 – REACTIVITY DATA

**STABILITY** Stable.

**INCOMPATIBILITY MATERIALS:** Reacts with strong acids to produce hydrogen gas.

**CONDITIONS TO AVOID:** None

**HAZARDOUS DECOMPOSITION:** Will not occur.

**HAZARDOUS POLYMERIZATION:** Will not occur.

### 7 – SPILL AND LEAK PROCEDURES

Minimal problems with spills of this product would be expected to occur because of its solid form. If there is a spill of alloy dust, the following precautions should be taken.

1. Shut off ignition sources; no flares, smoking or flames should be near hazard area.
2. Do not touch or walk through spilled material. Clean up using methods which avoid dust generation.
3. Compressed air should not be used to clean up spills.
4. During cleanup, skin and eye contact and inhalation of dust should be avoided as much as possible.
5. Provide local exhaust or dilution ventilation as required.

### 8 – SPECIAL PROTECTION INFORMATION

Use good housekeeping practices to prevent accumulations of dust and to keep airborne dust concentrations at a minimum. Avoid breathing dust or fumes.

PEL/TLV exposures should be kept below recommended by OSHA and ACGIH to insure proper health protection of worker.

### 9 – SPECIAL PRECAUTIONS

**RESPIRATORY PROTECTION:** NIOSH/MSHA-approved dust/ mist/ fume respirators should be used during welding, burning and grinding operations, if applicable exposure limits are exceeded.

**SKIN PROTECTION:** Use appropriate protective clothing, such as welder's aprons and gloves, when welding or burning. Use clothing and equipment, as required by applicable federal, state and local occupational safety and health laws.

**EYE PROTECTION:** Safety glasses should always be worn when grinding or cutting; face shield should be worn when welding burning.

### 10 – DISCLAIMER OF WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for his or her particular purpose(s).

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