

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - IDENTIFICATION

**Product & Chemical Family:** Precious Alloys & Solders

**Manufacturer/Supplier:** Jensen Dental  
50 Stillman Road  
North Haven, CT 06473  
USA

**Emergency Telephone:** 1-800-243-2000

**Revised:** March 29th, 2010

## SECTION 2 - HAZARDS IDENTIFICATION

The hazards listed below may occur if the PELs and/or TLVs exceed the constituent's established values listed in section 3:

- Cobalt:** Inhalation of cobalt dust/fumes may lead to respiratory conditions. Symptoms and conditions include: Cough, dyspnea (breathing difficulty), wheezing, decreased pulmonary function; weight loss; diffuse nodular fibrosis; respiratory hypersensitivity, asthma. Dermal contact can potentially cause dermatitis.
- Copper:** Inhalation of copper oxide fume can result in metal fume fever. This is a self limiting condition characterized by flu-like symptoms which resolve within 24 to 48 hours.
- Indium:** Inhalation of indium dust/fumes may cause lung damage; pulmonary edema. Other target organs include: liver, kidneys, heart, and blood.
- Iron:** Inhalation of Iron dust/fumes may cause a chronic condition known as pneumoconiosis. Early symptoms of pneumoconiosis include chest tightness and shortness of breath. Advanced symptoms include serious breathing impairment, chronic bronchitis, and emphysema.
- Manganese:** Inhalation of manganese dust/fumes can result in a condition known as Manganism. Manganism is a disease caused by exposure to excessive levels of manganese, which attacks the normal functions of the central nervous system, kidneys, and liver. Manganism is characterized by diminished motor skills and psychological disturbances, symptoms that parallel those of Parkinson's disease. Target organs include: Respiratory system, central nervous system, and kidneys.
- Platinum:** Inhalation of platinum dust/fumes can cause irritation to the upper respiratory region; asthma.
- Rhodium:** Inhalation of rhodium dust/fumes can cause irritation to the upper respiratory region.
- Silver:** Absorption of silver compounds by ingestion, inhalation or through broken skin can cause argyria, a permanent bluish-grey discoloration of the skin, conjunctiva and mucous membranes.
- Tin:** Inhalation of tin oxides can lead to a condition called stannosis (benign pneumoconiosis). Early symptoms of pneumoconiosis include chest tightness and shortness of breath. Advanced symptoms include serious breathing impairment, chronic bronchitis, and emphysema.
- Zinc:** Inhalation of zinc oxide fume can result in metal fume fever. This is a self limiting condition characterized by flu-like symptoms which resolve within 24 to 48 hours.

## SECTION 3 – COMPOSITION / INFORMATION OF HAZARDOUS INGREDIENTS

- See Chart on pages 4 & 5 for composition/information of hazardous ingredients

MSDS.5PASZ





## **Carcinogen or Potential Carcinogen**

**NTP:** No

**NIOSH:** No

**IARC:** *Cobalt* is listed as a category 2B carcinogen; possibly carcinogenic to humans.

**ACGIH:** *Cobalt* is listed as an A3; Confirmed animal carcinogen with unknown relevance to humans.

*Iron oxide* is listed as an A4; not classifiable as a human carcinogen.

*Rhodium* is listed as an A4; not classifiable as a human carcinogen.

### **SECTION 12- ECOLOGICAL INFORMATION**

This material is insoluble in water.

### **SECTION 13- DISPOSAL CONSIDERATIONS**

**Byproduct Recycling:** When recycled (used in a process to recover metals), this material is not classified as hazardous waste under federal law. Dusty or dust-like materials should be sealed inside two plastic bags, placed in a DOT approved container, and appropriately labeled.

**Solid Waste Management:** When spent products are declared solid wastes (no longer recyclable), they must be labeled, managed and disposed of, in accordance with federal, state and local requirements

### **SECTION 14 - TRANSPORT INFORMATION**

There are no U.S. Department of Transportation hazardous material regulations that apply to the packaging and labeling of this product as shipped by Jensen Industries Inc.

### **SECTION 15- REGULATORY INFORMATION**

**OSHA Hazard Communication Standard, 29 CFR 1910.1200:** Components of these products are considered hazardous ingredients.

**Wastewater:** Wastewater regulations can vary considerably. Contact your local and state governments to determine their requirements.

### **SECTION 16 - OTHER INFORMATION**

**Disclaimer:**

The information herein is supplied in the belief it is from accurate and reliable sources. The information is supplied to assist the dental professional and no warranty is made with respect to the accuracy of information on the suitability of recommendation. This MSDS has been revised following the guidelines outlined in CFR 1910-1200 "Material Safety Data Sheets."

**IMPORTANT: If you have any questions or require additional information regarding the materials described in this Material Safety Data Sheet please contact Jensen Dental at 1-800-243-2000.**

## Compositions and Hazardous Ingredients

CAS#	Ag%	Au%	Co%	Cu%	Fe%	Ga%	In%	Mn%	Ir%	Pd%	Pt%	Re%	Rh%	Ru%	Sn%	Zn%
	7440-22-4	7440-57-5	7440-48-4	7440-50-8	7439-89-6	7440-55-3	7440-74-6	7439-96-5	7439-88-5	7440-05-3	7440-06-4	7440-15-5	7440-16-6	7440-18-8	7440-31-5	7440-66-6
*PEL/OSHA (mg/m <sup>3</sup> )	0.01	N/A	0.1	0.1	<sup>a</sup> 10	N/A	N/A	<sup>b</sup> C5	N/A	N/A	N/A	N/A	0.1	N/A	2	<sup>c</sup> 5R
**TLV/ACGIH (mg/m <sup>3</sup> )	0.1	N/A	0.02	0.2	<sup>a</sup> 5	N/A	0.1	0.2	N/A	N/A	1	N/A	1	N/A	2	<sup>c</sup> 2R/10R STEL
<b>Alloy</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>ADVANTAGE</b>	-	1	-	10	-	5	6	-	-	77	1	-	-	<1	-	-
<b>AZTEC</b>	-	99.9	-	-	-	-	<1	-	-	-	-	-	-	-	-	-
<b>CASTELL</b>	38	20	-	1	-	-	17	-	-	20	-	-	-	-	-	4
<b>CLASSIC IV</b>	<1	88	-	-	<1	-	1.5	-	-	-	9.5	<1	-	-	-	-
<b>ENDURANCE</b>	-	84.5	-	-	<1	-	2	-	-	5	8	<1	-	-	-	-
<b>EQUITY</b>	3	68	-	-	-	-	7	-	-	22	-	<1	-	<1	-	-
<b>FOUNDATION</b>	5	51.9	-	-	-	-	6	-	-	34	-	-	-	-	-	3
<b>GALILEO</b>	11	74.3	-	-	-	-	2	-	<1	3	7	-	-	-	-	2.5
<b>GALILEO-PF</b>	11.9	75	-	-	-	-	-	-	<1	-	10	-	<1	-	-	2.5
<b>INTEGRITY</b>	7	6	-	-	-	6	6	-	-	75	-	<1	-	<1	-	-
<b>J-3</b>	29.5	50	-	15.2	-	-	<1	-	<1	4	-	-	-	-	-	<1
<b>JIV</b>	11	68	-	12.5	-	-	<1	-	<1	6	1	-	-	-	-	<1
<b>JIV-PF</b>	10.2	72.5	-	13.5	-	-	<1	-	<1	-	2.8	-	-	-	-	<1
<b>J-7</b>	59.5	-	-	14	-	-	-	-	-	25	-	-	-	<1	-	1.5
<b>J14</b>	18	58.3	-	22	-	-	-	-	<1	-	-	-	-	-	-	1.7
<b>J18</b>	7.5	74	-	17	-	-	-	-	-	-	-	-	-	-	-	1.5
<b>J22</b>	5	91.7	-	2.8	-	-	-	-	-	-	-	-	-	-	-	<1
<b>J24</b>	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>JA</b>	12.5	83.3	-	3.5	-	-	-	-	<1	-	-	-	-	-	-	<1
<b>JB</b>	15	75	-	6	-	-	<1	-	<1	3	-	-	-	-	-	<1
<b>JC</b>	11	75	-	10	-	-	<1	-	<1	3	-	-	-	-	-	<1
<b>JCB</b>	25	62	-	9	-	-	<1	-	<1	3	-	-	-	-	-	<1
<b>JCBD</b>	21	60	-	14.5	-	-	<1	-	<1	3.5	-	-	-	-	-	<1
<b>JLCB</b>	26	56	-	13	-	-	<1	-	<1	4	-	-	-	-	-	<1
<b>JMC</b>	39	47	-	7	-	-	-	-	<1	6	-	-	-	-	-	1
<b>JP-I</b>	-	51.5	-	-	-	1.5	8.5	-	-	38.5	-	-	-	<1	-	-
<b>JP-I-A</b>	-	48	-	4	-	1.5	8	-	-	38.5	-	<1	-	<1	-	-
<b>JP-II</b>	-	87	-	-	<1	-	<1	-	-	4.5	7	<1	-	-	<1	-
<b>JP-5</b>	37.5	-	-	-	-	-	-	-	-	53.5	-	-	-	<1	8.5	<1
<b>JP5 w/Au</b>	35.5	2	-	-	-	-	-	-	-	53.5	-	-	-	<1	8.5	<1
<b>JP-80</b>	10	75	-	-	-	-	2	-	-	10	3	<1	-	-	-	-
<b>JPW</b>	15	49	-	-	-	-	-	-	-	31.5	-	<1	-	-	4.5	-

\*Taken from the Permissible Exposure Limits for Air Contaminants established by OSHA CFR 29 1910.1000 Subpart Z – Toxic and Hazardous Substances

\*\*Taken from the ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices

<sup>a</sup>Iron Oxide Fume

<sup>b</sup>Ceiling Value: The exposure limit of which is preceded by a “C”, shall at no time exceed the exposure limit given for that substance. If instantaneous monitoring is not feasible, then the ceiling shall be assessed as a 15- minute TWA exposure which shall not be exceeded at any time during the work day.

<sup>c</sup>Zinc Oxide Fume **STEL:** (Short Term Exposure Limit) A 15 minute TWA (Time Weighted Average) exposure that should not be exceeded at any time during a workday even if the 8-hour TWA is within the TLV-TWA.

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<b>Alloy</b>																
<b>JRVT</b>	13	77	-	8.5	-	-	<1	-	<1	1	-	-	-	-	-	<1
<b>JRVT-PF</b>	13	77	-	8.5	-	-	<1	-	<1	-	1	-	-	-	-	<1
<b>JWE</b>	71.5	-	-	-	-	-	2.5	-	-	25	-	-	-	-	-	1
<b>JWG</b>	69.5	2	-	-	-	-	2.5	-	-	25	-	-	-	-	-	1
<b>JYE</b>	24	52	-	18	-	-	<1	-	<1	5	-	-	-	-	-	<1
<b>OVERTURE</b>	5	74.5	-	-	-	-	-	-	-	15.2	3	<1	-	<1	2.3	-
<b>PREMIERE</b>	-	85	-	-	-	-	<1	<1	-	-	12.4	<1	<1	-	-	<1
<b>PULSE N3</b>	4	3	-	-	-	6.3	6.5	-	-	79.7	-	<1	-	<1	-	<1
<b>SECURITY</b>	9	40	-	-	-	-	6	-	-	40	-	<1	-	-	2	3
<b>SENTRY</b>	12.2	55.1	-	-	-	-	6.5	-	-	26.2	-	<1	-	-	-	-
<b>SL-40</b>	45	40	-	8.5	-	-	-	-	<1	5	-	-	-	-	-	1
<b>SOLUTION</b>	-	-	-	10	-	7	4	-	-	78	-	-	-	<1	-	<1
<b>STABILITY</b>	-	2	-	10	-	7	4	-	-	77	-	-	-	<1	-	<1
<b>STATE</b>	18	40	-	1	-	-	17	-	-	20	-	-	-	-	-	4
<b>SUPERIOR</b>	24.5	-	-	-	-	-	2	-	-	62.5	-	<1	-	<1	9	2
<b>SUPERIOR PLUS</b>	22	2	-	-	-	-	2	-	-	62.5	-	<1	-	<1	9.5	2
<b>Solder</b>																
<b>1400</b>	73	-	-	20	-	-	2	-	-	-	-	-	-	-	-	5
<b>585</b>	19.5	58.5	-	15	-	-	-	-	<1	-	-	-	-	-	2	5
<b>615</b>	17.5	61.5	-	15	-	-	-	-	<1	-	-	-	-	-	1.5	4.5
<b>650</b>	14	65	-	14.5	-	-	1.5	-	<1	-	-	-	-	-	-	5
<b>CPS</b>	33	60	-	-	-	-	3	-	<1	4	-	-	-	-	-	-
<b>LX</b>	12.9	78.5	2	-	-	-	-	-	<1	3	2.6	-	-	-	-	1
<b>P-80</b>	25	63	-	-	-	-	3	-	<1	9	-	-	-	-	-	-
<b>PWS</b>	10	71.5	-	-	-	-	-	-	<1	15	-	-	-	-	-	3.5
<b>SATELLITE</b>	10.2	72.5	-	13.5	-	-	<1	-	<1	-	2.8	-	-	-	-	<1
<b>SPIRIT</b>	27	63	-	-	-	-	3	-	<1	7	-	-	-	-	-	-

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