SAFETY DATA SHEET

Section 1 – Products and Suppliers

SDS: PSP-100 (01-2024)

Product Identifier:	Wesgo-PSP Products™ (Sintered plates and preforms and blends of alloy powders)
Other means of identification:	Wesgo Metals® Products: See Table 1 in Section 16 for specific products and their respective metal constituents.
Use (and restrictions):	Sintered plates and brazing powders for repairing metal components.

Suppliers and emergency contact information:

Morgan Advanced Materials/Wesgo Metals®
2425 Whipple Road
Hayward, California 94544 USA
+1-510-491-1100
0800-1700hrs local time, Mon-Fri.
mtchayward.msds@morganplc.com

SDS Date: 11 Jan 2024. Replaces previous version dated 09 Oct 2023.

Section 2 – Hazard Identification

As sold, sintered brazing plates are solid articles and, therefore, are not considered hazardous until used in melting and brazing operations, during which metal fumes and dust are generated. However, alloys in powder form can create airborne dust during handling and use. Hazardous levels of dust or metal fumes of alloy components can create health risks, as described below. Metallic dust and particles can cause a serious fire and/or explosion hazard.

2.1 Classification

Under the Globally Harmonized System of Classification and Labeling and the US OSHA Hazard Communication Standard, dust and fumes released during brazing operations are categorized as hazardous: (incl. Classification according to Regulation (EC) No 1272/2008 [CLP])

Carcinogenicity, Category 2	H351	due to the presence of nickel and cobalt
Skin sensitizer, Category 1	H317	due to the presence of nickel, chromium and cobalt
Respiratory sensitizer, Category 1	H334	Due to the presence of chromium and cobalt
Specific target organ toxicity/repeated exposure, Category 2	H373	due to the presence of nickel

2.2 Signal word, symbols, hazard and precautionary statements:

Danger

Hazard Statements:

H351	Suspected of causing cancer.
H317	May cause allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373	May cause lung damage due to repeated or prolonged exposure.

Note: Alpha-numeric designations included to address EU requirements.

Precautionary Statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P260A	Do not breathe dust or fumes.
P270	Do not eat, drink or smoke when using this product.
P280A + P264	Wear protective gloves to prevent skin contact or thermal burns during brazing operations. Wash hands thoroughly after handling.
P302 + P352 +	**If on skin:** Wash with plenty of water.
P333 + P313	**If skin irritation or rash occurs:** Get medical advice/attention.
P304 + P312	**If inhaled:** Call a poison center or doctor if you feel unwell.
P308 + P309 + P313	**If exposed, concerned, or feel unwell:** Get medical advice/attention.

Other information about health hazards:

Dust and fumes generated during brazing operations can cause skin and eye irritation. The materials in these products are not normally absorbed through the skin. Repeated or prolonged exposure to elevated concentrations of any airborne dust or fume can irritate or harm the respiratory system, especially as an aggravation to a pre-existing condition. Inhalation of significant quantities of very fine metal dust and metal fumes can cause “metal fume fever,” with flu-like symptoms. Avoid creating and breathing airborne dust and fumes.

Other information about physical hazards:

Brazing and soldering operations present a fire hazard to nearby combustible materials. Finely dispersed metal particles can form ignitable and explosive mixtures in air. Maintain good housekeeping.

Section 3 – Composition/Information on Ingredients

3.1 Mixtures:

See Table 1 in Section 16 for specific products and their respective metal constituents.

Constituents	CAS Registry No.	EINECS No.	Constituents	CAS Registry No.	EINECS No.
Aluminum (Al)	7429-90-5	231-072-3	Niobium (Nb)	7440-03-1	231-113-5
Boron (B)	7440-42-8	231-151-2	Rhenium (Re)	7440-15-5	231-130-8
Chromium (Cr)	7440-47-3	231-157-5	Silicon (Si)	7440-21-3	231-130-8
Cobalt (Co)	7440-48-4	231-158-0	Tantalum (Ta)	7440-25-7	231-135-5
Hafnium (Hf)	7440-58-6	231-166-4	Titanium (Ti)	7440-32-6	231-142-3
Iron (Fe)	7439-89-6	231-096-4	Tungsten (W)	7440-33-7	231-143-9
Molybdenum (Mo)	7439-98-7	231-107-2	Vanadium (V)	7440-62-2	231-171-1
Nickel (Ni)	7440-02-0	231-111-4	Zirconium (Zr)	7440-67-7	231-176-9

Section 4 – First Aid Measures

4.1 Description of first aid measures

Inhalation: Remove affected personnel to an exposure-free environment. If experiencing respiratory symptoms: Call a poison center or doctor if you feel unwell.

Skin contact: Wash hands with soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact Flush eyes with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If necessary, call a specialist.

Ingestion: Not applicable.

Indication of need for immediate medical attention and special treatment: Skin contact with hot metals or flames during brazing operations can cause thermal burns. Seek medical attention for severe thermal burns.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Section 5 – Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:

Use dry chemical or carbon dioxide.

Unsuitable extinguishing media:

Do not use water on a metal fire.

5.2 Special hazards arising from the substance or mixture

Combustion hazards:

Flames from brazing operations can ignite combustibles. In a finely divided form, this product may ignite when exposed to flames or by reaction with incompatible materials. Metal oxides or fumes of constituent metals may be emitted during a fire.

5.3 Advice for firefighters

Special fire-fighting procedures:

Use protective clothing and breathing equipment appropriate to the surrounding fire.

Unusual fire and explosion hazards:

Metal powder mixtures can cause fires and/or explosions when present in air at high concentrations.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

No special measures required.

6.2 Environmental precautions:

No special measures required.

6.3 Methods and material for containment and cleaning up:

Metal scrap should be collected and contained using normal procedures. Metal particulates, shavings, powders and granules should be cleaned up using wet-sweeping methods to avoid creating dust. Vacuum only with HEPA filtered equipment. **Do not** use compressed air for clean-up. Some fine metal powders may ignite or explode under specific conditions; avoid creating high airborne dust concentrations and accumulating dust. Appropriate personal protective equipment should be used when cleaning up dust. Recovered material should be placed in sealed containers and recycled for their metal content. Dispose in accordance with applicable waste disposal regulations.

6.4 Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Section 7 – Handling and Storage

7.1 Precautions for safe handling

Avoid skin contact; wash hands after handling chemicals. Do not eat, drink or smoke while handling these products. All employees who handle this material should be trained to handle it safely. Maintain good housekeeping practices, such as wet sweeping or vacuuming to remove dust accumulation. Avoid dust inhalation or ingestion and contact of materials with eyes. Certain metal powder mixtures can cause fires and/or explosions when present in air at high concentrations.

7.2 Conditions for safe storage, including any incompatibilities

Store in closed containers in a cool, dry, well-ventilated, fire-resistant area away from oxidizing agents and sources of heat and ignition.

7.3 Specific end use(s)

No further relevant information available.

Section 8 – Exposure Controls and Personal Protection

8.1 Control parameters

Exposure limits and guidelines:

Exposure limits and guidelines:

Constituents	OSHA PEL 8-Hr TWA	ACGIH TLV 8-Hr TWA
Aluminum (Al)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)	1 mg/m³ (respirable fraction)
Boron (B)	None established	None established
Chromium (Cr)	1 mg/m³	0.5 mg/m³
Cobalt (Co)	0.1 mg/m³ (metal dust and fume)	0.02 mg/m³ (inhalable fraction)
Hafnium (Hf)	0.5 mg/m³	0.5 mg/m³
Iron (Fe)	None established	None established
Molybdenum (Mo)	15 mg/m³ (total dust)	10 mg/m³ (inhalable fraction) 3 mg/m³ (respirable fraction)
Nickel (Ni)	1 mg/m³	1.5 mg/m³ (inhalable fraction)
Niobium (Nb)	None established	None established
Rhenium (Re)	None established	None established
Silicon (Si)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)	Withdrawn due to insufficient data
Tantalum (Ta)	5 mg/m³	Withdrawn due to insufficient data
Titanium (Ti)	None established	None established
Tungsten (W)	None established	3.0 mg/m³
Vanadium (V)	None established	None established
Zirconium (Zr)	None established	5.0 mg/m³; 10 mg/m³(STEL) Note 1

Other jurisdictions may have different exposure limits and control guidelines. Users are advised to consult and comply with local regulations.
[1]STEL (Short Term Exposure Limit) - A 15-minute time-weighted average (TWA) exposure that should not be exceeded at any time during the workday, even if the 8-hour TWA is within the TLV-TWA, PEL-TWA, or REL-TWA.

8.2 Exposure controls

Engineering controls:

Use local exhaust ventilation during brazing operations to minimize or eliminate concentrations of airborne contaminants.

Personal protective equipment:

Wear protective gloves to prevent skin contact or thermal burns during brazing operations. Use NIOSH-approved respiratory protective equipment if exposures exceed established limits or guidelines.

General hygiene considerations:

Do not eat, drink or smoke when handling these products. Wash hands after handling these products.

Limitation and supervision of exposure into the environment

The legal issue values and limitations are to be paid attention!

Section 9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Colors vary according to metals	**Odor:**	No odor
Odor threshold:	Not applicable	**pH:**	Not applicable
Melting point:	Not applicable	**Boiling point:**	Not applicable
Flash point:	Not applicable	**Evaporation rate:**	Not applicable
Flammability:	Not applicable	**LEL/UEL:**	Not applicable
Vapor pressure:	Not applicable	**Vapor density:**	Not applicable
Relative density:	Not applicable	**Water solubility:**	Not applicable
Partition coefficient (n-octanol/water):	Not applicable	**Auto ignition temperature:**	Not applicable
Decomposition temperature:	Not applicable	**Viscosity:**	Not applicable

9.2 Other information

No further relevant information available.

Section 10 – Stability and Reactivity

10.1 Reactivity
No further relevant information available.

10.2 Chemical stability
Braze alloy products are stable when stored in closed containers at room temperature under normal storage and handling conditions.

10.3 Possibility of hazardous reactions
Heating to elevated temperatures may liberate metal/metal oxide fumes (i.e., during brazing operations). Metal powder mixtures can cause fires and explosions (if present at high airborne concentrations).

10.4 Conditions to avoid:
Avoid open flames around fine metal powders.

10.5 Incompatible materials:
Metals in particulate form are typically incompatible with strong acids and strong oxidizing agents.

10.6 Hazardous decomposition products:
No dangerous decomposition products known.

Section 11 – Toxicological Information

11.1 Information on toxicological effects
User-generated dusts and fumes may, on contact with the skin or eyes, produce mechanical irritation. Chronic exposures could cause dermatitis (skin) or conjunctivitis (eyes). Excessive inhalation of powders or user-generated fumes from welding/ brazing with these products may, depending on the specific features of the process used, pose a long-term health hazard. The composition of fumes and gases generated in user operations will depend on the metal alloy, base metal and the specific process being used and may include metals, metal oxides, carbon monoxide, ozone, and oxides of nitrogen.

The International Agency for Research on Cancer (IARC) classifies metallic nickel and cobalt as Category 2B carcinogens (possible carcinogenic to humans). The US Department of Health and Human Services National Toxicology Program (NTP) classifies nickel and cobalt as reasonably anticipated to be human carcinogens based on limited human evidence and laboratory testing of animals. Additional toxicological information is available through the U.S. National Institute for Occupational Safety and Health (NIOSH) and the Registry of Toxic Effects of Chemical Substances (RTECS).
See website: http://www.cdc.gov/niosh/ipcsneng/nengrtec.html. Applicable product components and their respective RTECS numbers are listed below:

Aluminum	BD4680000	Molybdenum	QA4680000	Titanium	XR1700000
Boron	ED7350000	Nickel	QR5950000	Tungsten	YO7175000

Chromium	GB4200000	Niobium	QT9900000	Vanadium	YW1355000
Cobalt	GF8750000	Rhenium	SV1078000	Zirconium	ZH7070000
Hafnium	MG4600000	Silicon	VW0400000		
Iron	NO4565500	Tantalum	WW5505000		

Section 12 – Ecological Information

12.1 Toxicity

When used in their intended manner, these products would not be expected to be released to the environment. Adverse effects on ecosystems are not anticipated under normal and recommended conditions of handling, use, storage and disposal. None of the constituents in these products are classified as environmentally persistent, bio-accumulative toxic chemicals. Cobalt and chromium may cause long lasting harmful effects to aquatic life.

Section 13 – Disposal Considerations

13.1 Waste treatment methods

Manage waste materials in accordance with applicable waste and disposal regulations. Whenever possible, try to recycle and reclaim due to the intrinsic value of certain braze alloy constituents. Whatever cannot be saved for recovery or recycling should be shipped to a permitted waste management facility. Process, use or contamination of this product may change the characteristics of the waste and, consequently, how the waste is managed.

Section 14 – Transport Information

These products are not regulated as a hazardous material or dangerous good for transportation purposes by any known authority.

Special precautions for user

See Section 6 – 8.

Section 15 – Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- Chromium and nickel in dust form are hazardous substances as defined by the U.S. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
- All brazing product components are listed on the U.S. Toxic Substances Control Act (TSCA) inventory.

- Certain braze alloy products contain cobalt, chromium, and nickel which are subject to the reporting requirements of Section 313 of the U.S. Emergency Planning and Community Right-to-Know Act (SARA Title III). Refer to Table 1 in Section 16 for applicable products.

- Metallic nickel and cobalt metal powder are listed on the list of "Chemicals known to the State of California to cause cancer or reproductive toxicity."

Section 16 – Other Information

Summary of Latest Revisions: 03 Jan 2022. Periodic review. Updated TLV (ACGIH) data for tungsten in Section 8. Added new product, PSP-164, (Table 1, Section 16).
31 Mar 2022: Updated metal components for PSP-57 (Table 1, Section 16).
09 Oct 2023: Added new product, PSP-159, (Table 1, Section 16).
11 Jan 2024: Numerous products added to Table 1, Section 16.

Reasonable care has been taken in the preparation of information contained in this Safety Data Sheet and the information is provided in good faith. Information provided in this Safety Data Sheet has been prepared by competent and appropriately qualified and trained persons according to the US OSHA Hazard Communication Standard. Morgan Advanced Materials - Wesgo Metals® assumes no responsibility as to the accuracy of information drawn from other sources. No warranty, expressed or implied, is made.

Abbreviations and acronyms

ANSI	American National Standards Institute
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society)
EINECS	European Inventory of Existing Commercial Chemical Substances
HEPA	High-efficiency particulate air filters
NIOSH	National Institute of Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible exposure limit
TLV	Threshold Limit Values
TWA	Time-weighted Average

Table 1: Metal Composition - %																	
PRODUCT TRADE NAMES	**Al**	**B**	**C**	**Co**	**Cr**	**Fe**	**Hf**	**Mo**	**Nb**	**Ni**	**Re**	**Si**	**Ta**	**Ti**	**W**	**V**	**Zr**
PSP-1	1	1		38	21	1				33					5		
PSP-2	2	1		33	20	1				39					4		
PSP-3	3	1		10	15			2		64				3	2		
PSP-4	3	1		10	15			2		64				3	2		
PSP-5				53	22	1				14		5			5		
PSP-6	1	1		1	19	18		3		56				1			
PSP-7	1	1		1	19	18		3		56				1			
PSP-8		2		43	24					28					3		
PSP-9		1		46	24					25					4		
PSP-10	3	1		10	14			2		65				3	2		
PSP-11	2	2		4	12	2		1		72		2		2	1		
PSP-12 (PWA 1186)				52	22	1				15		4			6		
PSP-13	4	1		9	9					69		1		1	6		
PSP-14	5	1		5	15			2		72							
PSP-15	4	1		9	9					67		1		1	8		
PSP-16	5	1		4	14			3		73							
PSP-17	5			3	14			3		74				1			
PSP-18	2	1		4	16			1		67		7			2		
PSP-19	3			7	14			1		68		5			2		
PSP-20	2	2		5	16			1		71				2	1		
PSP-21		1		47	24					24					4		
PSP-22	3	1		10	14			3		62				4	3		
PSP-23—CUST. SUPPLIES																	
PSP-24—CUST. SUPPLIES																	

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PRODUCT TRADE NAMES	**Al**	**B**	**C**	**Co**	**Cr**	**Fe**	**Hf**	**Mo**	**Nb**	**Ni**	**Re**	**Si**	**Ta**	**Ti**	**W**	**V**	**Zr**
PSP-25—CUST. SUPPLIES																	
PSP-26	1	1		1	19	18		3		56				1			
PSP-27	1	1		41	22	1				29					5		
PSP-28	3	1		10	15			2		64				3	2		
PSP-29	3	1		9	15			1		68				2	1		
PSP-30	3	1		10	14			3		62				4	3		
PSP-31	4	2		4	12			2		73				1	2		
PSP-32	4	2		9	9					69					7		
PSP-33	4	2		11	13			2		67				1			
PSP-34		2		25	20	1				48					4		
PSP-35	5	1		3	13			3		73				1	1		
PSP-36		2		43	24					28					3		
PSP-37		1		47	24					24					4		
PSP-38	3	1		36	21	1				33					5		
PSP-39	3			9	15			1		69				2	1		
PSP-40 (PWA 1186)				55	21					15		4			5		
PSP-41 (PWA 1186)				60	27					5		2			6		
PSP-42 (PWA 1186)				57	21					14		3			5		
PSP-43	3	1			13			2		81							
PSP-44	3	1			13			2		81							
PSP-45	3	1			13			2		81							
PSP-46	4	1		9	10					70					6		
PSP-47	4	1		9	11					70					5		
PSP-48	1	1		5	14			2		72				3	2		

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Table 1: Metal Composition - %																	
PRODUCT TRADE NAMES	**Al**	**B**	**C**	**Co**	**Cr**	**Fe**	**Hf**	**Mo**	**Nb**	**Ni**	**Re**	**Si**	**Ta**	**Ti**	**W**	**V**	**Zr**
PSP-49	1	1		5	20			2		67				2	2		
PSP-50 (PWA 1186)				57	22					13		2			6		
PSP-51	3	1		7	16			1		68				2	2		
PSP-52		1		55	25	1				14					3		1
PSP-53	3	1		14	10					69		1		2			
PSP-54		1		57	24	1				12					4		1
PSP-55		1		45	21	1		3		25					4		
PSP-56		2		19	19	1				52					7		
PSP-57			2		61					33		4					
PSP-58	2	1		25	13	31				28							
PSP-59		1		49	17	1		23		3		3			1	2	
PSP-60		1		45	22					27					5		
PSP-61	3	1		16	11			3		62		1		3			
PSP-62	2			7	15			2		69				3	2		
PSP-63	4	1		4	12	1		3		72				1	2		
PSP-64		1		40	23	1				28		1	1		5		
PSP-65	8			15	20					55		2					
PSP-66		1		43	24	1				24			2		4		1
PSP-67	5	1		10	6			2		61	2		7		6		
PSP-68		2		19	19	2				51					7		
PSP-69		1	1	50	23	1				10			4		7		3
PSP-70		2			12	9		1		73		3					
PSP-71	4	1		10	9		1			63			2	2	8		

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PSP-72	4	1		9	7			1		66	2		5		5		
PSP-73		1	1	50	23	1				10			4		7		3
PSP-74	3	1		10	14			2		64			1	3	2		
PSP-75	5	1		4	14	1		3		71				1			
PSP-76	4	2		9	7		1	1		65	2		4		5		
PSP-77	4	2		4	12	1	1	2		71				1	2		
PSP-78	1			43	21	1		1		26		1		1	5		
PSP-79	5	1	4	10	11		1			60			2	1	5		
PSP-80		1		36	17	2				35		6			3		
PSP-81	4	2	2	10	13					64			3		2		
PSP-82	5	1		9	6			1		65	2		6		5		
PSP-83		2	1	38	24	1				28			1		3		2
PSP-84	2	3		8	9		1			73					4		
PSP-85	4	1		12	14			2		65				2			
PSP-86				49	18	1		24		3		3	1		1		
PSP-87			1	41	28	3				6		2	1		17	1	
PSP-88			1	51	24					5		1			17	1	
PSP-89				50	18			25		2		4			1		
PSP-90		1		48	19	1		21		4		3	1		2		
PSP-91	2	1		6	16	1		1	1	67			1	2	2		
PSP-92	2	2		4	15	1		1		71			1	2	1		
PSP-93	1	2		20	21				1	50			2	2	1		

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PSP-94	3	2		9	7		1	1		68	1		3		5		
PSP-95	5	1		11	9		1	1		63	2		4		3		
PSP-96				47	18	2		24		3		4	1		1		
PSP-97	3	2		1	15	1		2		75				1			
PSP-98	2	2		27	18	1				47					3		
PSP-99		1	1	51	23	1				10			4		7		2
PSP-100	4	1		18	14			2		57			2	2			
PSP-101	2	2		54	23	1				10		2	3		3		
PSP-102	3	1		9	16			1		64			2	2	2		
PSP-103	4	1		9	15			1		65			1	2	2		
PSP-104		1	1	51	23	1				10			4		7		2
PSP-105			1	50	20	1				14		4	2		6		2
PSP-106	4	1		9	7		1	1		65	2		5		5		
PSP-107	1			10	20	3			1	56		5	1	2	1		
PSP-108				36	24	1				33		1			5		
PSP-109		1		51	21	1				15		6			5		
PSP-110		1		38	22	2				31		1			5		
PSP-111	2	1		7	14	1		3		65				4	3		
PSP-112	4			17	14			5		57				3			
PSP-113	4			17	14			5		57				3			
PSP-114—CUST. SUPPLIES																	
PSP-115	3	2		6	11	1	1	1		69	1		3		2		

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PSP-116	3	2	4	5	8		1			67		2	2	1	5		
PSP-117	8			48	16					24		4					
PSP-118	8			16	22					52		2					
PSP-119	3	1		9	15			1	1	64			2	2	2		
PSP-120		2		10	18	1		3		65				1			
PSP-121				27	23	1				42		1	2		4		
PSP-122		1		32	23	1				36		1	1		5		
PSP-123				52	23	1				16		1			7		
PSP-124	2	2		5	11			2		71		2		3	2		
PSP-125	4	2		9	7		1	1		65	2		4		5		
PSP-126	5	1		10	6			2		61	2		7		6		
PSP-127	1	1		26	18			2		39		1		2	10		
PSP-128	1			8	18	3				60		6	1	2	1		
PSP-129	8			12	22					58							
PSP-130	3	1		16	20	1			1	53			2	2	1		
PSP-131	2			5	17	1		2		63		5		3	2		
PSP-132	1	1		19	21				1	52			2	2	1		
PSP-133		1		47	19	2		23		3		3	1		1		
PSP-134	5	1		10	11		1			63			3	1	5		
PSP-135	4	1		10	12		1			63			3	1	5		
PSP-136	5	1		11	11		1	1		62	1		5		2		
PSP-137	5	1		11	10		1	1		64	1		4		2		

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SAFETY DATA SHEET

Table 1: Metal Composition - %																	
PRODUCT TRADE NAMES	**Al**	**B**	**C**	**Co**	**Cr**	**Fe**	**Hf**	**Mo**	**Nb**	**Ni**	**Re**	**Si**	**Ta**	**Ti**	**W**	**V**	**Zr**
PSP-138				50	18	1		14		9		6			2		
PSP-139				51	18	1		11		11		6			2		
PSP-143		1		49	24					19			3		4		
PAP-144		1		47	24					22			2		4		
PSP-159	2	1		18	9			3		63		2		2			
PSP-165	3	1		11	15			4		63				3			
PSP-166	8			15	20			0		55		2					
PSP-167		1		22	22			1		41		0			12		
PSP-168		0.6		43	18			23		12		3					
PSP-169	3	1		18	12			4		58		1		3			
PSP-183	4.9	1.5	0.1	10.5	8.7		1.1	1.1		62	1.2		3.2	0.2	5.3		0.1
PSP-184	4.9	1.4	0.1	10.3	8.9		1.1	1		61.8	1.2		3.1	0.3	5.7		0.1
PSP-185	4.8	1.3	0.1	10	9.1		1.1	0.9		62	1.2		3.0	0.4	6.1		
PSP-186	2	1		6	15			3		67				3	3		
PSP-190	1				19	18		3	5	53				1			
PSP-207		1		24	18			2	2	41		1		2	9		
PSP-209	5	1		10	11		1			64			3		5		
PSP-222	5	1		10	11		1			64			3		5		
PSP-223	6	1		10	11					62			3		6	235	
PSP-233		2.8		20						72.7		4.5					
PSP-234	3	1		15	19				1	56			2	2	1		
PSP-235	4	1		7	10		1			68			2		7		

Table 1: Metal Composition - %																	
PRODUCT TRADE NAMES	**Al**	**B**	**C**	**Co**	**Cr**	**Fe**	**Hf**	**Mo**	**Nb**	**Ni**	**Re**	**Si**	**Ta**	**Ti**	**W**	**V**	**Zr**
PSP-236				45	21					20		4			10		
PSP-237	6			12	14		1	1		56	1	3	3		3		
PSP-238	3	2		14	17					60			2	1	1		
PSP-239	4	2		10	12		1			64			3		4		
PSP-240				55	23					13		3			6		
PSP-242		1		44	24					25			2		4		
PSP-264				53	22					14		5			6		
PSP-265		1		40	21					32			2		4		

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