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MATERIAL SAFETY DATA SHEET

Section #1 - Product Identification

MSDS Number: 002	Issue Date: 10/28/2002 Revision Date: New
Trade Name: AIVRuTi	Synonyms: AIRuVTi
Chemical Family: Metal	

Section #2 - Product Composition

Element	Concentration	CAS Number	RTECS Number	OEL's TLV (mg/m ³) as TWA
Aluminum	~ 40%	7429-90-5	BD0330000	5
Ruthenium	~ 5%	7440-18-8	Not Available	Not Available
Vanadium	~ 54%	7440-62-2	XR2275000	Not Established
Titanium	~ 1%	7440-32-6	XR2275000	10

Section #3 - Physical Properties

Appearance: Odorless, silver gray solid	Relative Density (water): ~ 5.4
Melting Point: ~ 1500 degrees C	Solubility (water): none

Section #4 - Fire, Explosion, and Reactivity Data

1. This material is not flammable in the form in which it is supplied.
2. This material is stable, however, it should not be stored with strong acids. Contact with such materials may cause release of hazardous compounds.

Section #5 - Health Hazard Information

Specific information for this alloy does not exist, so information is included for each major constituent.

Aluminum

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	Eyes	Skin	Inhalation	Ingestion
Symptoms	Irritation	None	None	None
Prevention	Wear protective goggles	Wear protective gloves	Use local exhaust or wear respirator	Do not eat drink, or smoke while handling product
First Aid	Rinse open eye for several minutes under running water. If symptoms persist, consult a doctor	Wash with water.	Move to fresh air, consult doctor if trouble breathing	Rinse mouth, seek medical treatment.

Ruthenium

	Eyes	Skin	Inhalation	Ingestion
Symptoms	Irritation	None	None	None
Prevention	Wear protective goggles	Wear protective gloves	Use local exhaust or wear respirator	Do not eat drink, or smoke while handling product
First Aid	Rinse open eye for several minutes under running water. If symptoms persist, consult a doctor	Wash with water.	Move to fresh air, consult doctor if trouble breathing	Rinse mouth, seek medical treatment.

Vanadium

	Eyes	Skin	Inhalation	Ingestion
Symptoms	Irritation	None	None	None
Prevention	Wear protective goggles	Wear protective gloves	Use local exhaust or wear respirator	Do not eat drink, or smoke while handling product
First Aid	Rinse open eye for several minutes under running water. If symptoms persist, consult a doctor	Wash with water.	Move to fresh air, consult doctor if trouble breathing	Rinse mouth, seek medical treatment.

Titanium

	Eyes	Skin	Inhalation	Ingestion
Symptoms	Irritation	None	None	None
Prevention	Wear protective goggles	Wear protective gloves	Use local exhaust or wear respirator	Do not eat drink, or smoke while handling product
First Aid	Rinse open eye for several minutes under running water. If symptoms persist, consult a doctor	Wash with water.	Move to fresh air, consult doctor if trouble breathing	Rinse mouth, seek medical treatment.

Section # 6 - Spill, Leak, & Disposal Information

Specific information for this alloy does not exist, so information is included for each major constituent.

Aluminum

Vacuum or otherwise collect spilled material, then remove to a safe place. Use a P2 filter respirator for harmful particles.

Ruthenium

Vacuum or otherwise collect spilled material, then remove to a safe place. Use a P2 filter respirator for harmful particles.

Vanadium

Vacuum or otherwise collect spilled material, then remove to a safe place. Use a P3 filter respirator for harmful particles.

Titanium

Vacuum or otherwise collect spilled material, then remove to a safe place. Use a P1 filter respirator for harmful particles.

Section #7 - Special Precautions

The information listed above is given in good faith, but no warranty expressed or implied is made. The information is based upon data believed to be correct when the MSDS was written. ISA accepts no responsibility or liability for any harmful effects which may be caused by purchase, sale, use or exposure to our product.

References:

International Chemical Safety Cards downloaded from www.cdc.gov/niosh/ipcs