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## MATERIAL SAFETY DATA SHEET

### Section #1 - Product Identification

<b>MSDS Number:</b> 001	<b>Issue Date:</b> 10/14/2002 <b>Revision Date:</b>
<b>Trade Name:</b> IN 939	<b>Synonyms:</b> Nickel Base Super Alloy
<b>Chemical Family:</b> Metal	

### Section #2 - Product Composition

Element	Concentration	CAS Number	RTECS Number	OEL's TLV (mg/m <sup>3</sup> ) as TWA
Chromium	~ 22%	7440-47-3	GB420000	0.5
Cobalt	~ 19%	7440-48-4	GF8-750000	0.02
Nickel	~ 49%	7440-02-0	QR5950000	1

### Section #3 - Physical Properties

<b>Appearance:</b> Odorless, silver gray solid	<b>Relative Density (water):</b> ~ 8.9
<b>Melting Point:</b> ~ 1500 degrees C	<b>Solubility (water):</b> 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.

#### Chromium

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	Eyes	Skin	Inhalation	Ingestion
<b>Symptoms</b>	Redness	Redness	Coughing	None listed
<b>Prevention</b>	Face Shield, goggles	Protective gloves	Local exhaust equipment or approved respirator	Do not eat, drink or smoke during work.
<b>First Aid</b>	First, TRinse with plenty of water for several minutes (remove contact lenses, if possible), then take to a doctor	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer to doctor for medical attention	Fresh air, rest	Rinse mouth, seek medical attention

### Cobalt

	Eyes	Skin	Inhalation	Ingestion
<b>Symptoms</b>	Redness	Dry skin	Cough, Labored breathing. Shortness of breath	Abdominal pain, vomiting.
<b>Prevention</b>	Face shield or goggles in combination with respiratory protection	Protective gloves and clothing	Local exhaust equipment or approved respirator	Do not eat, drink or smoke during work.
<b>First Aid</b>	First, TRinse with plenty of water for several minutes (remove contact lenses, if possible), then take to a doctor	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer to doctor for medical attention	Fresh air, rest	Rinse mouth, seek medical attention

### Nickel

	Eyes	Skin	Inhalation	Ingestion
<b>Symptoms</b>	None listed	None listed	None listed	None listed
<b>Prevention</b>	Face shield or goggles in combination with respiratory protection	Protective gloves and clothing	Local exhaust equipment or approved respirator	Do not eat, drink or smoke during work.
<b>First Aid</b>	First, TRinse with plenty of water for several minutes (remove contact lenses, if possible), then take to a doctor	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer to doctor for medical attention	Fresh air, rest	Rinse mouth, seek medical attention

## Section # 6 - Spill, Leak, & Disposal Information

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

### Chromium

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

### Cobalt

Vacuum or otherwise collect spilled material, then remove to a safe place. Do not let this material enter the environment. Use a P3 filter respirator for harmful particles.

### Nickel

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

## Section #7 - Special Precautions

None listed

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](http://www.cdc.gov/niosh/ipcs)