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 Section I - IDENTIFICATION  
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Eutectic Canada Inc.  
 428 Aimé-Vincent  
 Vaudreuil - Dorion, Quebec  
 J5V 5v5

Emergency Telephone: (514) 695-7500

Product Name: **Alloy Eutalloy RW PE 5415**

AWS standard terminology: Thermal Spray Powder

WHMIS Classification: D-2A Serious Toxic Effects

D-2B Other Toxic Effects

Transport of Dangerous Goods: Not Applicable

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 Section II - HAZARDOUS INGREDIENTS  
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Ingredient	Range wt%	CAS Number	EEC Symbol(s)	R-Phrases
Nickel, elemental	<85	7440-02-0	Xn	R40-43

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 Section III - PHYSICAL / CHEMICAL CHARACTERISTICS  
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The following data should only be used in the context of the Material Safety Data Sheet.

Physical State: Powder

Appearance and Odour: metallic greyish powder

pH: not applicable

Boiling Point: not determined

Melting Point: ~1030 - 1130°C

Flashpoint: not applicable (solid)

Flammability: not flammable

Explosive Properties: not explosive

Oxidizing Properties: not an oxidizer

Vapour Pressure: not applicable

Relative Density: ~4.4 g/cm<sup>3</sup>

Solubility: not soluble

Partition Coefficient: not applicable

Other Data: none relevant to safety

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 Section IV - FIRE AND EXPLOSION DATA  
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Flammable: Extinguishing Media

Suitable; will not burn; use extinguishing media suitable for surrounding fires.

## If Involved in a Fire

Use breathing apparatus; may give off noxious fumes (e.g. nickel compound).

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 Section V - REACTIVITY  
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Conditions to Avoid: none

Materials to Avoid: none

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Hazardous Decomposition Products

Harmful fumes may be liberated when overheated.

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 Section VI - HEALTH HAZARD DATA  
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The body can be affected if fumes and gases are inhaled, and/or come into contact with eyes.

**FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH**

**SHORT TERM (ACUTE)** over exposure to welding fumes may result in discomfort such as dizziness, nausea or irritation of the nose, throat or eyes.

**FLUORIDES** - compounds evolved may cause skin and eye burns and/or pulmonary edema.

**MANGANESE, MANGANESE DIOXIDE** - toxicity caused by inhalation of dust or fumes. Remove from exposure. Wash eyes and/or skin with water to remove dust.

**SILICON, SILICON OXIDE** - Possible eye irritant. Remove by washing eyes with lots of water.

**CHROMIUM** - Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory system, damage lungs and asthma. Swallowing chromium (VI) salts can cause severe injury or death. Dusts on the skin can form ulcers. Eyes can be burned by chromium (VI) compounds.

**NICKEL, NICKEL OXIDE** - Inhalation of fume with nickel compounds may cause metallic taste, nausea, tightness in chest, fever, allergic reactions.

**MOLYBDENUM** -Trioxide has caused irritation of the eyes, nose and throat, weight loss and digestive disturbances in animals.

**BARIUM** - Inhalation of fumes with barium compounds may cause aching eyes, rhinitis, frontal headache, wheezing, laryngeal spasms, salivation, anorexia.

**COPPER** - Metal fume fever can be caused by fresh copper oxide fumes.

**LEAD** - Inhalation of gases, fumes, dust or compounds (soluble or, insoluble) can cause blood and cell problems.

**SILVER** - Salts of silver are corrosive. Ulceration and eye burns are treated by flushing with copious amounts of water.

**ZINC** - Inhalation of zinc fumes may cause chills, breathing difficulties, fever, cough, muscular pain, nausea and vomiting. Recovery generally complete.

**CADMIUM** - Fumes cause irritation of the nose and throat. Sufficient inhalation (after a delay of several hours) may develop coughing, chest pain, sweating, chills, shortness of breath and weakness. Death may occur.

**TIN** - Eye, skin and respiratory system irritation from fumes.  
**LONG TERM (CHRONIC)** over exposure may lead to siderosis (iron deposits in lungs), affect pulmonary functions, blood and cell disorders.

**FLUORIDES** - Repeated exposure to fluorides can cause serious bone erosion.

**MANGANESE, MANGANESE DIOXIDE** - Long term over exposure to these compounds may affect the central nervous system. Symptoms include muscular weakness, tremors and behavioral and handwriting changes.

**SILICON, SILICON OXIDE** - Prolonged exposure to dust can cause pulmonary fibrosis (silicosis).

**CHROMIUM** - Chromium (VI) compounds are considered by OSHA to be carcinogenic. Absorption of chromium (VI) compounds through the skin can cause systemic poisoning primarily affecting the kidneys and liver.

**NICKEL, NICKEL OXIDE** - Long term over exposure to nickel compounds may cause lung fibrosis or pneumoconiosis. Nickel and its compounds are considered by the OSHA as carcinogenic.

**MOLYBDENUM** - Not known

**BARIUM** - Long term exposure to soluble barium compounds may cause nervous disorders and may have deleterious effects on the heart and circulatory systems.

**COPPER** - No adverse long-term effects have been reported.

**LEAD** - Repeated and prolonged exposures to gases, fumes or dusts are poisonous. This may lead to blood, cell, kidney, liver and/or generic disorders.

**SILVER** - Silver and its compounds cause pigmentation of the skin, eyes and respiratory tract (argyria).

**ZINC** - Severe and prolonged over exposure may cause pulmonary edema and pneumonia.

**CADMIUM** - Repeated and prolonged exposures to fumes may cause loss of smell, ulceration of the nose, shortness of breath (emphysema), kidney damage and mild anemia.

**TIN** - No significant long term effects.

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 Section VII - EMERGENCY FIRST AID  
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In case of Swallowing: wash out mouth with water.

In case of Inhalation: remove to fresh air and seek medical attention.

In case of Contact with Eyes

Rinse immediately with plenty of water and seek medical attention. The glare of the flame irritates unprotected eyes; consult eye specialist.

In case of Contact with Skin Disinfect eventual burns, wash hands with water.

Component(s) listed as "dangerous" in Annex to 67 / 548 / EEC<sup>(2)</sup>

<u>Component</u>	<u>EINECS No.</u>
Nickel	231-111-4

Classified according to the Directives 67 / 48 / EEC and 66 / 379 / EEC, and their various amendments.

Warning Symbols: Xn  
Warning Words: harmful and irritant

Risk Phrases: R40 - possible risk of irreversible effects  
R43 - may cause sensitization by skin contact.

Safety Phrases: S22 / 23 - do not breathe dust or fumes  
S38 - in case of insufficient ventilation, wear suitable respiratory equipment  
S36 / 37 / 39 - wear suitable protective clothing, gloves, and eye / face protection.  
S44 - if you feel unwell, seek medical advice (show the label where possible).

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Section VIII - PREVENTIVE MEASURES  
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Personal protective equipment: Use NIOSH approved respirator for protection against fumes in confined areas or where local exhaust or ventilation does not keep exposure below the recommended exposure limit. Wear protective helmet or use face shield with filter lens. Provide protective screens and flash goggles if necessary. Refer to CSA W117.2 - Safety in Welding and Cutting - for further information.

Storage and handling: Keep in cool dry place.

Steps to be taken if material is released or spilled: Powder should be kept from contaminating the water table. Sweep up immediately.

Waste Disposal Method: Prevent waste from contaminating environment. Disposal should be in accordance with local, provincial and federal regulations.

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Section IX - PREPARATION OF MATERIAL SAFETY DATA SHEET  
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Prepared by: Director of Products and Services  
Contact number: 514-695-7500  
Date prepared: 30/04/09  
Date revised: 30/09/10  
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