

**Disclaimer:** In no event, shall KWG Industries be liable for the accuracy, validity of the following information. The Information was collected from our supplier's notices. KWG Industries does not manufacture/ nor produce raw materials. Being a responsible metals distributor, we are simply communicating to our customers' health and safety information for proper handling and use. Mill Certificates, if any, will be provided to buyer upon written request at time of the order.

**Appropriate VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING and PROTECTIVE EYE PROTECTION is always recommended.**

Additional questions or information refer to:

(MSDS) Material Safety Data Sheets from producing mill

(OSHA) Occupational Safety and Health Administration for proper training, use of products, emergency and first aid procedures.

## WARNING/ NOTICE

Raw materials contain various elements in the base metal with varying toxicity and concentration. Metal-working activities may be dangerous to your health: avoid breathing in fumes and gases generated by metal-working activities, prolonged and/or repeated exposure to fumes or dust created during metal working activities may cause health hazard effects.

### Elements:

Aluminum	Copper/Copper Alloys	Manganese	Phosphorus	Sulfur	Vanadium
Chromium	Iron	Molybdenum	Selenium	Titanium	Zinc
Cobalt	Lead	Nickel	Silicon	Tungsten	

### Health Hazards:

**SKIN CONTACT:** Dermatitis due to sensitization may occur in some individuals from exposure to nickel and chromium fumes

**EYE CONTACT:** May cause irritation

**INGESTION:** May cause irritation of mouth and throat

**INHALATION:**

- **Aluminum**– No known health effects
- **Chromium**– Dusts are reported to be relative non-toxic, although there are reports of a nodular type of pulmonary disease with impairment of lung function Some insoluble chromium compounds are suspect carcinogens
- **Cobalt** - May cause interstitial pneumonitis and sensitization of the respiratory system
- **Copper and/or Copper Alloys**- May cause metal fume fever with flu-like symptoms Repeated exposure may cause thickening of the skin; and skin, teeth, and hair discoloration Target organ is primarily the lung, but repeated high exposure can also affect the liver This product also contains lead Overexposure to lead by inhalation may cause seizures; coma and death lead has been identified as potential human carcinogen If coated with oil, may cause skin irritation/dermatitis by contact Welding fume is listed as a possible carcinogenic to humans
- **Iron** – Siderosis, no fibrosis
- **Lead** – Anemia, urinary dysfunction, metallic taste in mouth, weakness, constipation, nausea, nervous disorder
- **Manganese** – Pneumonitis, CNS involvement, including irritability, difficulty in walking, speech disorders, compulsive behavior, mask-like face and Parkinson-like syndrome
- **Molybdenum** – Irritation of the nose and throat, weight loss, digestive disturbance in animals. No industrial poisoning has been reported
- **Nickel** – Respiratory irritation and pneumonitis Several nickel compounds are suspect lung and nasal carcinogens
- **Phosphorus**– Necrosis of the mandible
- **Selenium** – Nasal and bronchial irritation, gastro-intestinal disturbances, garlic odor of breath.
- **Silicon** – May produce x-ray changes in the lungs without disability
- **Sulfur (as sulfur dioxide)** – Edema of the lungs
- **Titanium** – No chronic debilitation symptoms indicated
- **Tungsten** – Some pulmonary involvement, such as a cough
- **Vanadium**– Emphysema, pneumonia
- **Zinc** – Chromosomal anomalies in leukocytes reported. Arthritis, lameness and inflammation of the gastrointestinal tract reported from animal studies