Material Safety Data Sheet

ER70S-2, ER70S-3, ER70S-6

Section 1: Product Information

<u>Supplier's Name</u> <u>Manufacturer's Name</u>

Refer to supplier

TECHNIWELD

<u>Address</u> <u>Address</u>

2300 Winston Park Dr. Refer to supplier

Oakville, ON L6H 7T7

<u>Telephone Number</u> <u>Telephone Number</u>

(905) 829-8780 Refer to supplier

1-800-268-4833

<u>Trade Name</u> <u>Chemical Family</u>

N/A Metals

Chemical Formula: Product Use

N/A GMAW & GTAW

Section 2. Hazardous Ingredients

Low-alloy welding wire <5% Cr, <1% Ni, <1% Co No substances classifiable as toxic and/or noxious

| Approx. | | | ACGIH-TLV | | | |
|------------|-----------------|------------|-----------|-------|------|------|
| Ingredient | Concentration % | CAS Number | OSH PEL | mg/m3 | LC50 | LD50 |
| Iron | 96 | 7439-89-6* | N/A | 5.0 | N/A | N/A |
| Manganese | 1.0-2.0 | 7439-96-5* | N/A | 5.0 | N/A | N/A |
| Silicon | 0.5-1.2 | 7440-21-3* | N/A | 0.1 | N/A | N/A |
| Copper | 0.5 | 7440-50-8 | N/A | N/A | N/A | N/A |
| Other | Traces | | N/A | N/A | N/A | N/A |
| Ozone | | 10028-15-6 | N/A | 0.2 | N/A | N/A |

^{*} Hazard appears as fume

Section 3: Physical Data

| Physical State: Solid | Boiling Point: N/A |
|---------------------------------------|--------------------------------------------|
| Odour and Appearance: Wire. Odourless | Melting Point: 1600°C |
| Odour Threshold (PPM): N/A | Solubility in Water (20°C) N/A |
| Specific Gravity: N/A | % Volatile (by Volume): N/A |
| Vapour Pressure (MM): N/A | pH: N/A |
| Vapour Density (Air =1): N/A | Coefficient of Water/Oil Distribution: N/A |
| Evaporation Rate: N/A | |

Section 4: Fire or Explosion Hazard

Flammable: No. Keep flammable materials away from work area.

Means of Extinction: N/A Flashpoint: N/A

Upper Flammable Limit (% by volume): N/A Lower Flammable Limit (% by Volume): N/A

Auto ignition Temperature: N/A Hazardous Combustion Products: None

Explosion data-sensitivity to mechanical impact: N/A Explosion data-sensitivity to static discharge: N/A

Section 5: Reactivity Data

Chemical Stability: Yes Incompatibility to other substances: N/A If so, which ones? N/A

Reactivity under what conditions? Strong acids and bases

Hazardous decomposition products:

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedures and filler metal being used.

Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating, galvanizing, etc.), the number of welders and the volume of the work area, the quality and amount of the ventilation, the position of the welder's head with respect to the fume plume as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapours from cleaning and degreasing activities).

Section 5: Reactivity Data (continued)

When the filler metal is consumed, the fume and gas produced are different in percent and form from the ingredients listed in the section Hazardous Ingredients.

Decomposition products of normal operation include those originating from the volatilization reaction, or oxidation of the materials shown in the section Hazardous Ingredients, plus those from the base metal and coating, etc.

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet if worn or in the worker's breathing zone. (See ANSI/AWS F1.1 available from the "American Welding Society", also F1.3 "Evaluating Contaminants in the Welding Environment-A Sampling Strategy Guide", which gives additional advice on sampling.

Section 6: Toxicological Properties

Route of Entry:

Skin Contact: No
Skin Absorption: No
Eye Contact: No
Inhalation Acute: Yes
Inhalation Chronic: Yes
Ingestion: No

Fumes and gases can be dangerous to your health. Preexisting respiratory or allergic conditions may be aggravated in some individuals.

Effects of acute exposure to the material:

Short-term exposure to welding fumes may result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes; tightness in chest, fever and allergic reaction.

Effects of chronic exposure to the material:

Long term over exposure to welding fumes may lead to siderosis (iron deposits in lungs).

| Exposure Limits | 5 mg/m3 | Reproductive Toxicity | N/A |
|---------------------------|---------|--------------------------------------|-----|
| Irritancy of Material | N/A | Teratogenicity | N/A |
| Sensitization to Material | N/A | Mutagenicity | N/A |
| Carcinogenicity | N/A | Toxicologically synergistic products | N/A |

Section 7: Preventive Measures

Personal Protective Equipment:

- *Leather Welding Gloves
- *Welding Helmet and Safety Specs
- *Weld fume respirator or airline respirator for confined spaces or exposures that are above TLV.
- *Welders' protective clothing for protection against sparks and hot metal is recommended.

Engineering Controls: Local or mechanical exhaust ventilation when necessary.

Leak or spill procedure: N/A

Handling procedures and equipment: Arcs and sparks could be the source of ignition of combustible materials. Prevent fires.

Waste Disposal: Ferrous scrap. Dispose of as metal scrap. Do not dispose of this product in the environment. Raw material is suitable for melting.

Storage Requirements: High-density solid product. Avoid storing in unstable position. Handle with care. Protect hands and feet.

Special shipping Information: Not dangerous according to the transport provisions in force.

Section 8: First Aid Measures

Inhalation: Remove from exposure to fumes. If breathing has stopped, perform artificial respiration and call physician.

Skin Contact: For burns, erythema- stop exposure and treat burns. Contact physician. Eyes: If affected by arc glow or fumes, dampen with fresh water. Contact physician.

Section 9: Preparation Information

Prepared by: Techniweld Date Prepared: January 1, 2015

(905) 829-8780 1-800-268-4833

The manufacturer believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, the manufacturer cannot make any express or implied warranty as to this information.