(11044)

Material Safety Data Sheet

E71T-GS Gasless Flux-Cored Wire

Section 1: Product Information

Supplier's Name

TECHNIWELD

Address

2300 Winston Park Dr
Oakville, ON L6H 7T7

Telephone Number

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

Trade Name: E7IT-GS

Manufacturer's Name
Refer to Supplier

Address

Refer to supplier

Telephone Number

Refer to Supplier

Product Use: Carbon Steel electrode for flux cored arc welding without external gas shielding.

Section 2: Hazardous Ingredients

Hazardous Ingredients	Approximate Concentration %	CAS Number	OSHA PEL (mg/m3)	ACGIH TLV (mg/m3)	LC50	LD50
Iron	**80-90**	**7439-89-6**	**5R**	**10**	**N/A**	**N/A**
Manganese	**0.5-2.0**	**7439-96-5**	**5CL**	**0.2**	**N/A**	**N/A**
Titanium Dioxide	**0-3.0**	**13463-67-7**	**5R**	**10**	**N/A**	**N/A**
Silicon	**0-2.0**	**7440-21-3**	**5R**	**10**	**N/A**	**N/A**
Fluorspar	**2.0-12.0**	**7789-75-5**	**2.5 (as F)**	**2.5(as F)**	**N/A**	**N/A**
Aluminum	**1.0-5.0**	**7429-90-5**	**5R**	**10**	**N/A**	**N/A**
Magnesium	**1.0-3.0**	**7439-95-4**	**5R**	**10**	**N/A**	**N/A**
Barium Fluoride	**1.0-5.0**	**7787-32-8**	**0.5(as Ba)**	**0.5(as Ba)**	**N/A**	**N/A**

CL=Ceiling Limit R= Respirable Fraction

APPROVED MATERIAL

JAN 11 2013

MSDS # 11044

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Section 2: Physical Data

Physical State:Solid	Boiling Point: N/A
Odour and Appearance: Odourless	Freezing Point: N/A
Odour Threshold(PPM): N/A	Solubility in Water: 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. Welding arc and sparks can ignite combustibles.
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: N/A
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: No
If so, which ones? N/A
Reactivity under what conditions? N/A
Hazardous decomposition products:
Welding fumes and gases cannot be classified simply. The composition and the quantity of both are dependent upon the metal being welded, the process, procedures, and electrodes 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 or galvanizing), the number of welders and the volume of the work area, the quality and the amount of 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 vapors from cleaning and degreasing activities.)
When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 2. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in Section 2, plus those from the base metal and coating, etc., as noted above.

Section 5: Reactivity Data (continued)

It is understood, however, that the elements and/or oxides to be mentioned are virtually always present as complex oxides and not as metals. (Characterization of Arc Welding Fume: American Welding Society). The elements or oxides listed in Section 2 correspond to ACGIH categories located in (TLV Threshold Limit Values for Chemical Substances and Physical Agents in the workroom Environment).
Reasonably expected constituents of the fume would include: complex oxides of iron, manganese, silicon, and titanium. Fluoride may be present.

Section 6: Toxicological Information

Electric arc welding may create one or more of the following health hazards:
Arc Rays can injure eyes and burn skin
Electric Shock can kill
Fumes and gases can be dangerous to your health
Primary Routes of Entry: The respiratory system, eyes and/or skin

Acute Overexposure Effects:
Welding Fumes-may result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes.

Iron, Iron Oxide- None is known. Treat as a nuisance dust or fume
Manganese- Metal fume fever characterized by chills, fever, upset stomach, vomiting, irritation of throat and aching of body
Fluorides- Fluoride compounds evolved may cause skin and eye burns, pulmonary edema and bronchitis
Titanium Dioxide- None is known. Treat as a nuisance dust or fume
Magnesium, Magnesium Oxide- None is known. Treat as a nuisance dust or fume
Aluminum, Aluminum Oxide- None is known. Treat as a nuisance dust or fume

Chronic Overexposure Effects:

Welding Fumes- excess levels may cause bronchial asthma, lung fibrosis, pneumoconiosis or "siderosis"
Iron, Iron Oxide Fumes- Siderosis or deposits of iron in lungs which is believed to affect pulmonary function. Lungs will clear in time when exposure to iron fumes and its compounds ceases. Iron and Magnetite(Fe_3O_4) are not regarded as fibrogenic materials.
Manganese- Central nervous system effects referred to as "Manganism". Symptoms include muscular weakness, tremors similar to Parkinson's Disease. Behavioral changes and changes in handwriting may also appear. Employees overexposed to manganese compounds should receive quarterly medical examinations for early detection of manganism.

Section 6: Toxicological Information (continued)

Fluorides- Serious bone erosion (Osteoporosis) and mottling of teeth.
Titanium Dioxide- Treat as a nuisance dust. Little adverse effects on lungs. Does not produce significant organic disease or toxic effect when exposures are kept under reasonable control. Potentially reversible.
Magnesium, Magnesium Oxide- Treat as a nuisance dust. Little adverse effect on lungs. produce significant organic disease or toxic effect when exposures are kept under reasonable control. Potentially reversible.
Aluminum, Aluminum Oxide- Treat as a nuisance dust. Little adverse effects on lungs. Does not produce significant organic disease or toxic effect when exposures are kept under reasonable control. Potentially reversible

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	No	Toxicologically synergistic products	N/A

Section 7: Preventive Measures

Personal Protective Equipment:
Eye Protection: Wear helmet or wear face shield with filter lens. As a rule of thumb, begin with Shade Number 14. Adjust if needed by selecting the next lighter and/or darker shade number. Provide protective screens and flash goggles, if necessary, to shield others.
Respiratory Protection: Use NIOSH approved or equivalent fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below TLV.
Protective Clothing: Wear hand, head and body protection that help to prevent injury from radiation, sparks and electrical shock. See ANSI Z49.1. At a minimum, this includes welder's gloves and protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark, non-synthetic clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.
Engineering Controls: Use enough ventilation, local exhaust at the arc, or both, to keep fumes and gases below TLV's in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.
Leak or Spill Procedure: N/A
Handling Procedures and Equipment: N/A
Waste Disposal: Prevent waste from contaminating surrounding environment. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with local, provincial and federal regulations.
Storage Requirements: N/A
Special Shipping Information: N/A

Section 8: First Aid Measures

Call for medical aid. Employ first aid techniques recommended by the Red Cross.
Eyes and skin: If irritation or flash burns develop after exposure, consult a physician.

Section 9: Preparation Information

Prepared by:	Techniweld (905) 829-8780 1-800-268-4833
Date Prepared:	January 1, 2012

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