

Material Safety Data Sheet

SECTION 1 - IDENTITY

Trade Name: HT Magnet Wire

Description: A solid round conductor of either 27% Nickel Clad Copper (Kulgrid) or Nickel 205 (All Nickel) with a special ceramic insulation coating. Wire gauges are from 18 AWG through 42 AWG.

SECTION 2 - HAZARDOUS-INGREDIENTS

The following are the ingredients of the conductors and coating with the CAS Number for the items that are currently on the Environmental Hazardous Substance List.

Conductor:

<u>Ingredient</u>	<u>Kulgrid</u>		<u>% By Weight</u>		<u>CAS Number</u>
	<u>In Core</u>	<u>In Cladding</u>	<u>All Nickel</u>		
Copper	99.92	.20	.20		7440-5--8
Nickel		99.00	99.00		7440-02-0
Iron		.30	.30		
Manganese		.35	.35		7439-96-5
Carbon		.20	.20		
Silicon		.20	.20		
Sulfur		.008	.008		7704-34-9

Coating:

<u>Ingredient</u>	<u>% By Weight</u>	<u>CAS Number</u>
Lead Oxide	30-50	Unknown
Titanium Oxide	15-25	
Silicon Dioxide	15-25	
Magnesium Dioxide	8-15	
Boron Oxide	1-5	
Nickel Oxide	1-3	
Manganese Dioxide	1-3	1313-13-9
Cobalt Oxide	.5-2	
Aluminum Oxide	.5-2	

HT wire does not pose a hazard in its delivered form. It is inert and the coating and conductors will remain intact unless heated above 20000F, when it will melt. This is beyond the operating temperature of the product.

As a minimum, the coating should be treated as a Nuisance Dust (not otherwise regulated or classified) and care should be taken when stripping the insulation that the stripped powder is not inhaled (the amounts typically stripped are negligible and no special ventilation or safety equipment is required).

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Melting Point: Beyond 2000 °F

Solubility in Water: Negligible

Appearance and Odor: Grayish, no odor

SECTION 4 - PHYSICAL HAZARDS

Flash Point: Not Applicable

Hazardous Decomposition Products: The materials are normally stable and decompose only in extreme cases such as fire, in which case they will melt and possibly give off gases such as the oxides of carbon which are the normal expected products of combustion in the presence of large amounts of air. The products of poorly ventilated combustion are an uncharacterized mixture of organic compounds. This mixture will be as hazardous as the normal fire gases associated with poorly ventilated combustion.

Special Fire Fighting Procedure: Products of combustion may be toxic; avoid breathing fumes. Fire fighters should be equipped with self-contained breathing apparatus. Do not enter confined fire space without full bunker gear including a positive pressure, NIOSH listed self-contained breathing apparatus.

SECTION 5 - HEALTH HAZARDS

Lead Oxide: Can cause lead poisoning and other ailments; avoid inhalation of the ceramic powder from the coating on the wire.

Titanium Dioxide: Can cause eye and respiratory irritation; avoid inhalation of the ceramic powder from the coating on the wire or rubbing eyes with powder on hands.

Manganese Dioxide: Can cause eye and respiratory irritation; avoid inhalation of the ceramic powder from the coating on the wire or rubbing eyes with powder on hands. Abrasive Surface: The surface of the wire is abrasive and can cause cuts to fingers if wire passes through fingers rapidly.

Abrasive Surface: The surface of the wire is abrasive and can cause cuts to fingers if wire passes through fingers rapidly. Avoid direct contact with fingers during wire winding procedures

SECTION 6 - FIRST AID PROCEDURES

If an adverse reaction occurs after exposure, promptly start the recommended procedures below. Seek medical attention if further treatment is required.

Eye Contact: Flush eyes with plenty of running water for at least 15 minutes. Hold the eye lids apart during the flushing to ensure the rinsing of the entire surface of the eye and lids with water. Seek medical attention if eye irritation occurs.

Inhalation: If ceramic powder inhaled and breathing difficulties experienced, remove to fresh air. Seek medical attention if difficulties persist.

Cuts To Fingers: Clean cut area, apply antiseptics and bandage as appropriate * Seek medical attention if cut is deep and/or bleeding will not stop.

SECTION 7 - SPECIAL PRECAUTIONS & CONTROL MEASURES

Ventilation: No special exhaust ventilation is required as the amount of ceramic powder that will be generated from normal use of this product (e.g. coil winding, stripping of leads) is negligible.

Eye Protection: No special protective equipment is necessary. Care should be taken to insure hands are washed before they are placed in contact with eyes.

Abrasion Protection: Protective gloves or other suitable means should be used to prevent fingers from being in direct contact with the wire while it is being wound (coil winding).

SECTION 8 - USERS RESPONSIBILITY

A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be. Ceramawire must rely on the user to utilize the information we have supplied to develop work practice guidelines and employee instructional programs for the individual operation.

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