



### Cobalt Base Tig & Electrode

#### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Cobalt Base Tig & Electrode  
**Common Name:** 601, 606, 612, 621  
**SDS Number:** 27  
**Revision Date:** 5/29/2015  
**Version:** 2  
**Product Use:** Welding  
**Supplier Details:** WELD MOLD COMPANY  
750 Rickett Road  
Brighton, MI 48116

**Emergency:** 810-229-9521  
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#### 2 HAZARDS IDENTIFICATION

##### Classification of the substance or mixture

###### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Carcinogenicity, 1  
Health, Specific target organ toxicity - Repeated exposure, 2

##### GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



##### GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage  
H335 - May cause respiratory irritation  
H350 - May cause cancer  
H373 - May cause damage to organs through prolonged or repeated exposure  
CGA-HG11 - SYMPTOMS MAY BE DELAYED.

##### GHS Precautionary Statements:

P232 - Protect from moisture.  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
CGA-PG27 - Read and follow the Safety Data Sheet (SOS) before use.

##### Hazards not otherwise classified (HNOC) or not covered by GHS

**Route of Entry:** Eyes; Skin  
**Target Organs:** Throat; Nose, Respiratory system

**Inhalation:** Short term overexposure to welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of the nose, throat, lungs, and/or eyes.  
**ACCUTE EFFECTS:** Irritating to the nose, throat and respiratory tract.  
**SUBCHRONIC/CHRONIC TOXICITY**  
**CHRONIC:** Chronic overexposure to welding fumes can result in: Chronic respiratory problems, iron build-up in the lungs, bone erosion, reduced pulmonary functions and nervous disorders.

**Skin Contact:** The bright light produced by the arc can burn skin and eyes

**Eye Contact:** Fumes may be moderately irritating to the eyes

**3 COMPOSITION/INFORMATION ON INGREDIENTS**

**Ingredients:**

Cas#	%	Chemical Name
7440-44-0	.15-3%	Carbon
7439-96-5	0-2%	Manganese compounds and fumes (as Mn)
7440-47-3	25-33%	Chromium
7440-02-0	0-4%	Nickel, metallic and alloys
7439-98-7	0-6.5%	Molybdenum: soluble and insoluble compounds
7440-33-7	0.05-14%	Tungsten
7439-89-6	0-5%	Iron
7440-48-4	32.5-74.8%	Cobalt
7440-21-3	0-2%	Silicon

**EXPOSURE LIMITS**

<u>CHEMICAL NAME</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Industrial Carbon	15 mg/m3	10 mg/m3
Manganese compounds	5 mg/m3	1 mg/m3
Chromium	1 mg/m3	0.5 mg/m3
Nickel Metal	1 mg/m3	1.5 mg/m3
Silicon	10 mg/m3	10 mg/m3
Soluble compounds, as Mo	15 mg/m3	10 mg/m3
Tungsten	5 mg/m3 TWA, 10mg/m3 STEL	5 mg/m3 TWA, 10 mg/m3 STEL (inhalable)
Iron	10 mg/m3 TWA (Total Dust)	10 mg/m3 TWA (particles)
Cobalt	.01 mg/m3 TWA	.02 mg/m3 TWA

**4 FIRST AID MEASURES**

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention. Non-irritating.

**5 FIRE FIGHTING MEASURES**

Welding consumables are not flammable, however the welding arc and sparks will ignite other combustible materials. Do not weld in the presence of combustible materials.

## 6

**ACCIDENTAL RELEASE MEASURES**

GENERAL PROCEDURES: Prevent waste from contaminating the surrounding environment. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, provincial, and local regulations.

## 7

**HANDLING AND STORAGE**

**Storage Requirements:** Store in a dry area.

## 8

**EXPOSURE CONTROLS/PERSONAL PROTECTION****PERSONAL PROTECTION**

**EYES AND FACE:** S39 - Wear eye/face protection

**RESPIRATORY:** Use sufficient ventilation, local exhaust at the arc, or both to keep the fumes and gases below TLV's in the workers breathing zone. In confined spaces use respirable fume respirator or air-supplied respirator.

**PROTECTIVE CLOTHING:** The intensity of the arc and the sparks emitted from it can cause severe burns. All skin should be covered

## 9

**PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** The welding consumable discussed herein is composed of a wire strip or solid wire rod with a flux based core or outer coating.

## 10

**STABILITY AND REACTIVITY**

**Hazardous Decomposition:** The composition and quantity of welding fumes generated are dependent upon several variables including the base material, base material contaminants and/or coatings (paint, galvanized, etc.) welding process utilized. Other factors that will effect the quantity of fumes available for inhalation are the number of welding operators in a designated work area, the quality of ventilation, the position of the operator with respect to the fume plume, as well as the presence of contaminants in the atmosphere from other manufacturing operations. Reasonably expected fume constituents of this product would include: complex oxides of iron, manganese, silicon, chromium, nickel, molybdenum, calcium, magnesium, and titanium.  
COMMENTS: No hazard exists until this product is used in welding.

## 11

**TOXICOLOGICAL INFORMATION**

REPRODUCTIVE TOXIN: Not known

MUTAGENICITY: Not known

## 12

**ECOLOGICAL INFORMATION**

ENVIRONMENTAL DATA: No data available

## 13

**DISPOSAL CONSIDERATIONS**

Dispose of in accordance with federal, state and local regulations.

## 14

**TRANSPORT INFORMATION**

SPECIAL SHIPPING NOTES: Special shipping considerations for this product are limited to those necessary to prevent damaging the product.

## Component (CAS#) [%] - CODES

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Carbon (7440-44-0) [.15-3%] TSCA

Manganese compounds and fumes (as Mn) (7439-96-5) [0-2%] MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

RQ(5000LBS), Chromium (7440-47-3) [25-33%] CERCLA, EPCRAWPC, HWRORA, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

RQ(100LBS), Nickel, metallic and alloys (7440-02-0) [0-4%] CERCLA, EPCRAWPC, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA

Molybdenum: soluble and insoluble compounds (7439-98-7) [0-6.5%] MASS, OSHAWAC, PA, TSCA, TXAIR

Tungsten (7440-33-7) [0.05-14%] MASS, OSHAWAC, PA, TSCA, TXAIR

Iron (7439-89-6) [0-5%] TSCA

Cobalt (7440-48-4) [32.5-74.8%] MASS, NJHS, OSHAWAC, PA, PROP65, SARA313, TSCA, TXAIR

Silicon (7440-21-3) [0-2%] MASS, OSHAWAC, PA, TSCA, TXAIR

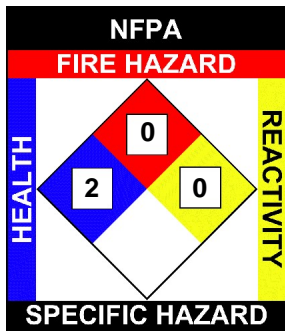
## Regulatory CODE Descriptions

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RQ = Reportable Quantity  
TSCA = Toxic Substances Control Act  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
OSHA = OSHA Workplace Air Contaminants  
PA = PA Right-To-Know List of Hazardous Substances  
SARA313 = SARA 313 Title III Toxic Chemicals  
TXAIR = TX Air Contaminants with Health Effects Screening Level  
CERCLA = Superfund clean up substance  
EPCRAWPC = EPCRA Water Priority Chemicals  
HWRORA = RCRA Hazardous Wastes  
NRC = Nationally Recognized Carcinogens  
PRIPOL = Clean Water Act Priority Pollutants  
TOXICPOL = Clean Water Act Toxic Pollutants  
PROP65 = CA Prop 65

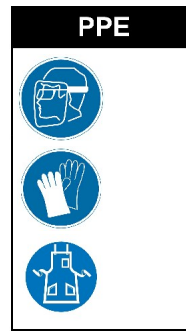
NFPA: Health = 2, Fire = 0, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 2, Fire = 0, Physical Hazard = 0

HMIS PPE: D - Face Shield and Eye Protection, Gloves, Apron



HMIS	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	D



#### REGULATORY INFORMATION

##### UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

313 REPORTABLE INGREDIENTS: This product contains some or all of the following reportable ingredients; Copper, Chromium, Manganese and Nickel

TSCA (TOXIC SUBSTANCE CONTROL ACT)

"WARNING": This product contains the following chemical(s) known to the state of California to cause cancer: Nickel (metallic) CAS# 7440-02-0