



Stainless Steel Electrodes

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Stainless Steel Electrodes
Common Name: 305, 307, 307C, 308, 308L, 308C, 309, 309Mo, 309L, 309C, 310, 310L, 310C, 310Cb, 310Mo, 312, 316, 316L, 317, 317L, 330, 330HM-16, 330MC, 330HC, 3310, 3320, 3320LR, 3325, 410, 347, 410C-16, 410NiMo, 420, 420C, 430C-16, 502, 505, 875, 887, 3700, 3315

SDS Number: 11
Revision Date: 5/7/2015
Version: 1
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; Inhalation

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.

ACUTE 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 |
|------------|----------|--|
| 7439-96-5 | 0.5-5% | Manganese compounds and fumes (as Mn) |
| 7440-21-3 | 0-1% | Silicon |
| 7440-47-3 | 11-32% | Chromium |
| 7440-02-0 | 8-38% | Nickel, metallic and alloys |
| 7439-98-7 | 0.5-4.5% | Molybdenum: soluble and insoluble compounds |
| 7440-50-8 | 0-0.5% | Copper |
| 7440-03-1 | 0.3-1% | Niobium |
| 13463-67-7 | 0.5-6% | Titanium dioxide |
| 16389-88-1 | 0-5% | Dolomite (CaMg(CO ₃) ₂) |
| 15096-52-3 | 1-6% | Sodium aluminum fluoride (as F) |
| 14808-60-7 | 1-4% | Silica, crystalline |
| 9004-34-6 | 1-6% | Cellulose |
| 1344-09-8 | 2-20% | Silicic acid, sodium salt |
| 1312-76-1 | 4-25% | Silicic acid, potassium salt |
| 1317-65-3 | 4-25% | Calcium carbonate (limestone) |
| 68476-25-5 | 6-20% | Feldspar-group minerals |
| 7789-75-5 | 1-18% | Calcium fluoride (CaF ₂) |
| 1309-38-2 | 2-6% | Magnetite (Fe ₃ O ₄) |
| 1344-28-1 | 1-4% | Aluminum oxide (Al ₂ O ₃) |
| 1302-78-9 | 0.5-4% | Bentonite |
| 1633-05-2 | 4-8% | Carbonic acid, strontium salt (1:1) |
| 12001-26-2 | 0.5-3% | Mica |

EXPOSURE LIMITS

| <u>CHEMICAL NAME</u> | <u>OSHA PEL</u> | <u>ACGIH TLV</u> |
|-----------------------------|--|---------------------------------|
| Manganese compounds | 5 mg/m ³ | 1 mg/m ³ |
| Silicon | 10 mg/m ³ * = Total dust, < = Respirable fraction | 10 mg/m ³ Total Dust |
| Chromium | 1 mg/m ³ | 0.5 mg/m ³ |
| Nickel Metal | 1 mg/m ³ | 1.5 mg/m ³ |
| Soluble compounds, as Mo | 15 mg/m ³ | 10 mg/m ³ |
| Copper | 1 mg/m ³ | 1 mg/m ³ |
| Titanium dioxide | 10 mg/m ³ NL = Not Listed | 10 mg/m ³ |
| Silica, crystalline | .01 mg/m ³ | 0.05 mg/m ³ |
| Cellulose | 10 mg/m ³ | 10 mg/m ³ |
| Sodium Silicate | NL | NL |

| | | |
|-------------------------------|----------------|-----------|
| Calcium Carbonate (limestone) | 15 mg/m3 | 2 mg/m3 |
| Calcium Fluoride | 2.5 mg/m3 As F | 2.5 mg/m3 |
| Black Iron Oxide - Magnetite | 15 mg/m3 | 15 mg/m3 |
| Aluminum Oxide | 10 mg/m3 | 10 mg/m3 |
| Mica | 3 mg/m3 | 3 mg/m3 |

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 Protective Equipment: HMIS PP, D | Face Shield and Eye Protection, Gloves, Apron

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 or without a flux based core or outer coating.

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.

REPRODUCTIVE TOXIN: Not known
MUTAGENICITY: Not known

ENVIRONMENTAL DATA: No data available

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

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

Component (CAS#) [%] - CODES

Manganese compounds and fumes (as Mn) (7439-96-5) [0.5-5%] MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

Silicon (7440-21-3) [0-1%] MASS, OSHAWAC, PA, TSCA, TXAIR

RQ(5000LBS), Chromium (7440-47-3) [11-32%] CERCLA, EPCRAWPC, HWRORA, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

RQ(100LBS), Nickel, metallic and alloys (7440-02-0) [8-38%] CERCLA, EPCRAWPC, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA

Molybdenum: soluble and insoluble compounds (7439-98-7) [0.5-4.5%] MASS, OSHAWAC, PA, TSCA, TXAIR

Niobium (7440-03-1) [0.3-1%] TSCA

Titanium dioxide (13463-67-7) [0.5-6%] MASS, OSHAWAC, PA, TSCA, TXAIR

Dolomite (CaMg(CO₃)₂) (16389-88-1) [0-5%] TSCA

Sodium aluminum fluoride (as F) (15096-52-3) [1-6%] TSCA

Silica, crystalline (14808-60-7) [1-4%] MASS, NRC, OSHAWAC, PA, TSCA, TXAIR

Cellulose (9004-34-6) [1-6%] MASS, OSHAWAC, PA, TSCA, TXAIR

Silicic acid, sodium salt (1344-09-8) [2-20%] TSCA

Silicic acid, potassium salt (1312-76-1) [4-25%] TSCA

Calcium carbonate (limestone) (1317-65-3) [4-25%] MASS, OSHAWAC, PA, TSCA, TXAIR

Feldspar-group minerals (68476-25-5) [6-20%] TSCA

Calcium fluoride (CaF₂) (7789-75-5) [1-18%] TSCA

Magnetite (Fe₃O₄) (1309-38-2) [2-6%] TSCA

Aluminum oxide (Al₂O₃) (1344-28-1) [1-4%] MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

Bentonite (1302-78-9) [0.5-4%] TSCA

Carbonic acid, strontium salt (1:1) (1633-05-2) [4-8%] TSCA

Mica (12001-26-2) [0.5-3%] MASS, OSHAWAC, PA, TXAIR

Regulatory CODE Descriptions

RQ = Reportable Quantity

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

TSCA = Toxic Substances Control Act

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

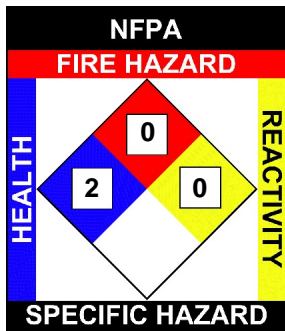
PRIPOL = Clean Water Act Priority Pollutants

TOXICPOL = Clean Water Act Toxic Pollutants

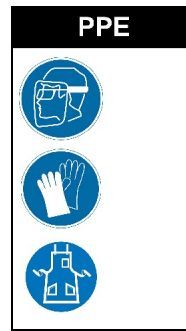
NFPA: Health = 2, Fire = 0, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 2(Chronic), 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 STATUS: All components of this product are listed on or exempt from the TSCA inventory.

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