



### Duplex Stainless Electrodes

#### 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Duplex Stainless Electrodes  
**Common Name:** 2209, 2553  
**SDS Number:** 02  
**Revision Date:** 5/6/2015  
**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.

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	1-3%	Manganese Compounds
7440-47-3	21.5-27%	Chromium
7440-02-0	6.5-10.5%	Nickel metal
7440-50-8	0.05-3.9%	Copper
7439-98-7	2.5-3.9%	Soluble compounds, as Mo
13463-67-7	9-17%	Titanium dioxide
15096-52-3	1-4%	Sodium Aluminum Fluoride
7789-75-5	1-4%	Calcium fluoride
546-93-0	1-3%	Magnesium Carbonate
1317-65-3	1-3%	Calcium carbonate
68476-25-5	4-7%	Feldspar
14807-96-6	0.005-1%	Talc
1302-78-9	0.005-1%	Bentonite clay
9004-32-4	0-3%	Sodium carboxymethylcellulose
1344-09-8	2-10%	Silicic acid, sodium salt
1312-76-1	2-10%	Silicic acid, potassium salt

**EXPOSURE LIMITS**

<u>CHEMICAL NAME</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
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
Copper	1 mg/m3* = Total dust, < = Respirable fraction	1 mg/m3 Total Dust
Soluble compounds, as Mo	15 mg/m3	10 mg/m3
Titanium dioxide	10 mg/m3 NL = Not Listed	10 mg/m3
Magnesium Carbonate	15 mg/m3	10 mg/m3
Sodium Silicate	NL	NL

### 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 or without 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

Manganese (7439-96-5) [1-3%] MASS, NJHS, OSHAWAC, PA, SARA313, TSCA, TXAIR

RQ(5000LBS), Chromium (7440-47-3) [21.5-27%] CERCLA, EPCRAWPC, HWRCRA, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

RQ(100LBS), Nickel (7440-02-0) [6.5-10.5%] CERCLA, EPCRAWPC, MASS, NJHS, NRC, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA

RQ(5000LBS), Copper (7440-50-8) [0.05-3.9%] CERCLA, EPCRAWPC, MASS, NJHS, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

Molybdenum (7439-98-7) [2.5-3.9%] MASS, OSHAWAC, PA, TSCA, TXAIR

Titanium dioxide (13463-67-7) [9-17%] MASS, OSHAWAC, PA, TSCA, TXAIR

Sodiumaluminum flouride (as F) (15096-52-3) [1-4%] TSCA

Calcium fluoride (CaF<sub>2</sub>) (7789-75-5) [1-4%] TSCA

Carbonic acid, magnesium salt (1:1) (546-93-0) [1-3%] MASS, OSHAWAC, TSCA, TXAIR

Calcium carbonate (1317-65-3) [1-3%] MASS, OSHAWAC, PA, TSCA, TXAIR

Feldspar-group minerals (68476-25-5) [4-7%] TSCA

Talc (containing no asbestos fibers) (14807-96-6) [0.005-1%] MASS, OSHAWAC, PA, TSCA, TXAIR

Bentonite (1302-78-9) [0.005-1%] TSCA

Cellulose, carboxymethyl ether, sodium salt (9004-32-4) [0-3%] TSCA

Silicic acid, sodium salt (1344-09-8) [2-10%] TSCA

Silicic acid, potassium salt (1312-76-1) [2-10%] TSCA

## Regulatory CODE Descriptions

RQ = Reportable Quantity

MASS = MA Massachusetts Hazardous Substances List

NJHS = NJ Right-to-Know Hazardous Substances

OSHA WAC = 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

HWRCRA = RCRA Hazardous Wastes

NRC = Nationally Recognized Carcinogens

PRIPOL = Clean Water Act Priority Pollutants

TOXICPOL = Clean Water Act Toxic Pollutants

NFPA No Data

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NFPA		HMIS	
FIRE HAZARD		HEALTH	<input type="checkbox"/> <input type="checkbox"/>
HEALTH	REACTIVITY	FLAMMABILITY	<input type="checkbox"/>
SPECIFIC HAZARD		PHYSICAL HAZARD	<input type="checkbox"/>
		PERSONAL PROTECTION	<input type="checkbox"/>

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"