

Safety Data Sheet: DURA-WELD GOLD ELECTRODE

Supersedes Date 05/31/2011

Issuing Date 06/03/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DURA-WELD GOLD ELECTRODE

Recommended use Welding

Information on Manufacturer

X-ERGON by Partsmaster, Div of NCH Corp.

P.O. Box 655326

Dallas, TX 75265-5326

Product Code 10620001

Chemical nature Inorganic solid blend

Emergency Telephone Number

CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color Gold

Physical State Solid

Odor Odorless

GHS

Classification

Physical Hazards

None

Health Hazard

Acute Oral Toxicity

Acute Aquatic Toxicity

Chronic Aquatic Toxicity

Other hazards

None

Category 4

Category 1

Category 1

Labeling

Signal Word

WARNING



Hazard Statements

H302 - Harmful if swallowed

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P270 - Do not eat, drink or smoke when using this product

P264 - Wash face, hands and any exposed skin thoroughly after handling.

P301+ P312 - IF SWALLOWED: Call a physician if unwell

P330 - Rinse mouth

P501 - Dispose of contents and container to an approved waste disposal plant.

P273 - Avoid release to the environment

5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Iron	7439-89-6	60-100
Titanium dioxide	13463-67-7	5-15
Silicon dioxide - hydrated	7631-86-9	1-5
Cellulose	9004-34-6	1-5
Feldspar	68476-25-5	1-5
Manganese	7439-96-5	1-5
Potassium silicate	1312-76-1	1-10

4. FIRST AID MEASURES

General advice

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist .

Skin Contact

In case of contact, immediately flush skin with soap and plenty of water. If skin irritation persists, call a physician.

Inhalation

Remove person to fresh air. If signs/symptoms continue, get medical attention.

Ingestion If swallowed, do not induce vomiting - seek medical advice. Rinse mouth.
Notes to physician Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash Point Not applicable **Method** Not applicable
Upper No data available **Lower** No data available

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Arcs and sparks can ignite combustibles and flammable products. See American National Standard Z49.1; Safety in Welding and Cutting published by The American Welding Society .

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA **Health** 2 **Flammability** 0 **Instability** 0
HMIS **Health** 2 **Flammability** 0 **Instability** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Wear appropriate protective clothing. Avoid creating dusty conditions. Transfer solid into a properly labeled container for re-use or disposal. If necessary, wash area with water and pick up wash water for disposal.

Environmental Precautions Prevent product from contaminating soil or from entering sewage, drainage systems, and bodies of water .

Methods for Containment Pick up and arrange disposal without creating dust.

Methods for Cleaning Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Clean contaminated surface thoroughly. Shovel into suitable container for disposal. Take up mechanically and collect in suitable container for disposal.

Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

Handling Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place

Storage Temperature **Minimum** No information available **Maximum** No information available

Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Iron	No data available	No data available	No data available
Titanium dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m ³	IDLH: 5000 mg/m ³
Silicon dioxide - hydrated	No data available	No data available	IDLH: 3000 mg/m ³ TWA: 6 mg/m ³
Cellulose	: 10 mg/m ³ TWA	: 15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)	TWA: 10 mg/m ³ TWA: 5 mg/m ³
Feldspar	No data available	No data available	No data available
Manganese	TWA: 0.2 mg/m ³	Ceiling: 5 mg/m ³	IDLH: 500 mg/m ³ STEL 3 mg/m ³ TWA: 1 mg/m ³
Potassium silicate	No data available	No data available	No data available

Engineering Measures Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gases below the TLV's in the worker's breathing zone and in the general area. Train the worker to keep his head out of the fumes .

Personal Protective Equipment

Eye/Face Protection

Wear a helmet or use face shield with filter lens of appropriate shade number (SEE ANSI/ASCZ49.1) provide protective screen and flash goggles, if necessary, to shield others. As a rule of thumb, start a shade that is too dark to see the weld zone. Then go next lighter shade which gives sufficient view of the weld zone .

Skin Protection

Welder's leather gloves, Wear fire/flame resistant/retardant clothing.

Respiratory Protection

Use a NIOSH/MSHA approved or equivalent fume respirator or air supplied respirator when welding in confined spaces, or where local exhaust or ventilation does not keep exposure below TLV's .

General Hygiene Considerations Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Viscosity	Not applicable
Color	Gold	Odor	Odorless
Odor Threshold	Not applicable	Appearance	Textured black paste
pH	Not applicable	Specific Gravity	8
Evaporation Rate	Not applicable	Percent Volatile (Volume)	No information available
VOC Content (%)	No information available	Vapor Pressure	Not applicable
Vapor Density	Not applicable	Solubility	Insoluble
n-Octanol/Water Partition	No data available	Melting Point/Range	1830 - 2730 °F / 999 - 1499 °C
Decomposition Temperature	No data available	Boiling Point/Range	5500 °F / 3038 °C
Flammability (solid, gas)	No data available	Method	Not applicable
Flash Point	Not applicable		
Autoignition Temperature	No data available		
Upper No data available Lower No data available			

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to Avoid	None known
Incompatible Products	Strong acids, Strong oxidizing agents.
Hazardous Decomposition Products	Fumes and gasses produced by welding, brazing and similar processes cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, the procedures and the filler metal being used. Other conditions which also influence the composition and quantity of fumes and gases to which the worker may be exposed include: coatings on the metal being welded, the number of welders and the volume of the work space, the quality and amount of ventilation used, the position of the welder's head in relation to the fume plume, as well as the presence of contaminants in the atmosphere when the filler metal is consumed. The fume and gas decomposition products generated are different in percent and form the product ingredients listed in Section III. The products formed in normal operation include those originating from the volatilization, reaction and oxidation of the filler metal, the metal being welded, the coatings, etc. as noted above. One recommended way to determine the composition and quality of fumes and gases to which workers are exposed is to take an air sample inside the welders helmet if worn or in the workers breathing zone. See ANSI/AWS F1.1 "Method For Sampling Airborne Particles Generated By Welding And Allied Processes" available from the American Welding Society, P.O. Box 35140, Miami, FL 33135
Possibility of Hazardous Reactions	Hazardous polymerization does not occur

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50	1,246.76
Dermal LD50	2,001.00
Inhalation LC50	
Gas	No information available
Mist	11.60
Vapor	3.19

Principle Route of Exposure	Inhalation
Primary Routes of Entry	Inhalation
Acute Effects	
Eyes	Causes eye irritation.
Skin	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Chronic Toxicity	Prolonged exposure may cause chronic effects. Long term overexposure to iron fumes may lead to siderosis (iron deposits in the lung) and is believed by investigators to affect pulmonary function. Lungs will clear in time when exposure to iron and its components cease. Inhalation of manganese fumes may affect the central nervous system, may cause spastic gait, drowsiness, paralysis and other neurological problems with symptoms including weakness and tremors resembling Parkinson's disease. Behavioral changes and changes in handwriting may also appear. Prolonged exposure to elevated noise levels during operations may affect hearing.

Target Organ Effects

Lungs, Central nervous system, Blood, Kidney, Respiratory system.

Aggravated Medical Conditions

Respiratory disorders, Central nervous system, Kidney disorders, Respiratory system.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Iron	= 984 mg/kg (Rat)	no data available	no data available	no data available	no data available
Titanium dioxide	> 10000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Silicon dioxide - hydrated	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h	no data available	no data available
Cellulose	> 5 g/kg (Rat)	> 2 g/kg (Rabbit)	> 5800 mg/m ³ (Rat) 4 h	no data available	no data available
Feldspar	no data available	no data available	no data available	no data available	no data available
Manganese	= 9 g/kg (Rat)	no data available	no data available	no data available	no data available
Potassium silicate	= 1300 mg/kg (Rat)	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Iron	no data available	no data available	no data available	no data available	no data available
Titanium dioxide	no data available	no data available	no data available	no data available	respiratory system
Silicon dioxide - hydrated	no data available	no data available	no data available	no data available	eyes, respiratory system
Cellulose	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Feldspar	no data available	no data available	no data available	no data available	no data available
Manganese	no data available	no data available	no data available	no data available	CNS, respiratory system, blood, kidneys
Potassium silicate	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Iron	not applicable	not applicable	not applicable	not applicable	not applicable
Titanium dioxide	A4	Group 2B	not applicable	X	not applicable
Silicon dioxide - hydrated	not applicable	not applicable	not applicable	not applicable	not applicable
Cellulose	not applicable	not applicable	not applicable	not applicable	not applicable
Feldspar	not applicable	Group 2B	not applicable	not applicable	not applicable
Manganese	not applicable	not applicable	not applicable	not applicable	not applicable
Potassium silicate	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information

No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Iron	no data available	LC50 = 13.6 mg/L Morone saxatilis 96 h LC50 = 0.56 mg/L Cyprinus carpio 96 h	no data available	no data available	N/A
Titanium dioxide	no data available	no data available	no data available	no data available	N/A
Silicon dioxide - hydrated	EC50 = 440 mg/L Pseudokirchneriella subcapitata 72 h	LC50 = 5000 mg/L Brachydanio rerio 96 h	no data available	EC50 = 7600 mg/L 48 h	N/A
Cellulose	no data available	no data available	no data available	no data available	N/A
Feldspar	no data available	no data available	no data available	no data available	N/A
Manganese	no data available	no data available	no data available	no data available	N/A
Potassium silicate	no data available	LC50 301 - 478 mg/L Lepomis macrochirus 96 h LC50 = 3185 mg/L Brachydanio rerio 96 h	no data available	EC50 = 216 mg/L 96 h	N/A

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal

Dispose of in accordance with local regulations.

Container Disposal

Empty containers should be taken for local recycling, recovery, or waste disposal

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. REGULATORY INFORMATION

Inventories

TSCA	Complies
DSL	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Feldspar	68476-25-5	1-5	1.0
Manganese	7439-96-5	1-5	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Iron	Not applicable	Not applicable
Titanium dioxide	Not applicable	Not applicable
Silicon dioxide - hydrated	Not applicable	Not applicable
Cellulose	Not applicable	Not applicable
Feldspar	Not applicable	Not applicable
Manganese	Not applicable	Not applicable
Potassium silicate	Not applicable	Not applicable

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Component	CAS-No	California Prop. 65
Crystalline Silica (Quartz)	14808-60-7	carcinogen

16. OTHER INFORMATION

Prepared By	Christopher Drogin
Supersedes Date	05/31/2011
Issuing Date	06/03/2013
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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