

Safety Data Sheet: 308L-16 FLXCOATED ELECTRODE

Supersedes Date 03/26/2012

Issuing Date 06/14/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name 308L-16 FLXCOATED 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 12030308

Chemical nature Inorganic solid blend

Emergency Telephone Number

CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color White

Physical State Solid

Odor Odorless

GHS

Classification

Physical Hazards

None

Health Hazard

Acute Oral Toxicity

Skin Corrosion/Irritation

Skin Sensitization

Carcinogenicity

Specific target organ systemic toxicity (repeated exposure)

Category 5

Category 3

Category 1

Category 2

Category 1

Other hazards

None

Labeling

Signal Word

DANGER



Hazard Statements

H303 - May be harmful if swallowed

H316 - Causes mild skin irritation

H317 - May cause an allergic skin reaction

H351 - Suspected of causing cancer

H372 - Causes damage to organs through prolonged or repeated exposure

Precautionary Statements

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe dust or fume.

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

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

P281 - Use personal protective equipment as required

P280 - Wear protective gloves, protective clothing and eye protection.

P272 - Contaminated work clothing should not be allowed out of the workplace

P321 - Specific treatment (see supplemental first aid instructions on this label)

P302+ P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs, get medical attention

P363 - Wash contaminated clothing before reuse

P308 + P313 - IF exposed or concerned: Get medical attention/advice

P405 - Store locked up

P273 - Avoid release to the environment

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

40 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Iron	7439-89-6	30-60
Chromium	7440-47-3	10-30
Nickel	7440-02-0	5-10
Titanium dioxide	13463-67-7	5-10
Feldspar	68476-25-5	1-5
Manganese	7439-96-5	5-10

Bentonite	1302-78-9	3-7
Molybdenum	7439-98-7	3-4
Calcium Fluoride	7789-75-5	3-7
Limestone	1317-65-3	1-5
Silicon	7440-21-3	.1-1

4. FIRST AID MEASURES

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

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

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.

Notes to physician Treat symptomatically. In severe cases of an allergic reaction, anaphylactic shock may occur. Have the person lie down with their legs above their chest to increase blood flow to the heart and brain. Ensure respiratory support by supplying oxygen and administer epinephrine as indicated. Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsions may be needed.

5. FIRE-FIGHTING MEASURES

Flash Point Not applicable **Method** Seta closed cup

Upper No data available **Lower** No data available

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

Unsuitable Extinguishing Media
None.

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
Wear self contained breathing apparatus for fire fighting if necessary.

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 Shovel or vacuum any spilled material into a suitable container. Alloy wastes are normally collected to recover metal value .

Neutralizing Agent Not applicable.

7. HANDLING AND STORAGE

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

Storage Keep container tightly closed. Keep out of the reach of children.

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
Chromium	TWA: 0.5 mg/m ³	TWA: 1 mg/m ³	IDLH: 250 mg/m ³ TWA: 0.5 mg/m ³
Nickel	TWA: 1.5 mg/m ³	TWA: 1 mg/m ³	IDLH: 10 mg/m ³

			TWA: 0.015 mg/m ³
Titanium dioxide	TWA: 10 mg/m ³	TWA: 15 mg/m ³	IDLH: 5000 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
Bentonite	TWA: 1 mg/m ³	No data available	No data available
Molybdenum	TWA: 10 mg/m ³ TWA: 3 mg/m ³	No data available	IDLH: 5000 mg/m ³
Calcium Fluoride	TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³	No data available
Limestone	No data available	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³
Silicon	No data available	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³

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, Lightweight protective clothing.

Respiratory Protection

Use enough ventilation, local exhaust at the arc, or both to keep the fumes and gasses below the TLV's in the workers' breathing zone and the general area. Train the worker to keep his head out of the fumes. Use MSHA/NIOSH approved or equivalent fume respirator or air supplied respirator when welding in a confined space or when local exhaust or ventilation does not keep exposure below TLV.

General Hygiene Considerations

When using, do not eat, drink, or smoke. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Viscosity	Not applicable
Color	White	Odor	Odorless
Odor Threshold	Not applicable	Appearance	Textured black paste
pH	Not applicable	Specific Gravity	No data available
Evaporation Rate	Not applicable	Percent Volatile (Volume)	No information available
VOC Content (%)	No information available	Vapor Pressure	Not applicable
Vapor Density	No information available	Solubility	Insoluble
n-Octanol/Water Partition	No data available	Melting Point/Range	No data available
Decomposition Temperature	No data available	Boiling Point/Range	5500 °F / 3038 °C
Flammability (solid, gas)	No data available	Method	Seta closed cup
Flash Point	Not applicable		
Autoignition Temperature	No information 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 such as Chlorine bleach and concentrated Hydrogen Peroxide.
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

None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

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

Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	
Gas	No information available
Mist	No information available
Vapor	No information available

Principle Route of Exposure	Inhalation
Primary Routes of Entry	None known

Acute Effects

Eyes	Causes eye irritation. Welding arc may damage eyes .
Skin	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Inhalation	Welding fumes may result in discomfort such as: dizziness, nausea, or dryness or irritation of nose, throat, or eyes. Fumes can aggravate asthma, bronchial conditions, or allergies. Individuals with allergies or impaired respiratory function may have symptoms worsen by exposure to welding fumes . Excessive inhalation of iron oxides fumes or dust can lead to irritation of the respiratory tract . May cause allergic respiratory reaction.

Ingestion May be harmful if swallowed.

Chronic Toxicity

Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. Inhalation of Molybdenum fumes has caused kidney damage, respiratory irritation and liver damage in animals . 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 . Repetitive exposure to nickel oxides may lead to lung fibrosis or pneumoconiosis. Soreness and itchiness of the nose and changes in skin color and/or appearance may also result. Nickel compounds are on the IARC list as posing a carcinogenic risk to humans. OSHA (29 CFR 1910.120) lists nickel as possible carcinogen . Constant inhalation of chromium (VI) compounds may cause an ulceration and perforation of the nasal septum as well as liver and kidney damage. IARC has concluded that the evidence for carcinogenicity to humans and animals is inadequate for chromium metal and trivalent compounds, but sufficient for hexavalent chromium compounds. Chromium compounds are on the IARC list as posing a carcinogenic risk to humans. OSHA (29 CFR 1910.120) lists chromium as possible carcinogen. Chromium VI compounds are required by OSHA to be considered carcinogenic . Prolonged exposure may cause chronic effects.

Target Organ Effects Eyes, Lungs, Nasal Cavities, Respiratory system, Skin, Blood, Central nervous system, Kidney, Liver.

Aggravated Medical Conditions Allergies, Skin disorders, Respiratory system, Pre-existing liver and kidney diseases, Central nervous system, Kidney disorders, Liver disorders.

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
Chromium	no data available	no data available	no data available	no data available	no data available
Nickel	> 9000 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
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
Bentonite	> 5000 mg/kg (Rat)	no data available	no data available	no data available	no data available
Molybdenum	no data available	no data available	no data available	no data available	no data available
Calcium Fluoride	= 4250 mg/kg (Rat)	no data available	no data available	no data available	no data available
Limestone	no data available	no data available	no data available	no data available	no data available
Silicon	= 3160 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
Chromium	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Nickel	no data available	no data available	no data available	no data available	nasal cavities, lungs, skin (lung and nasal cancer) lungs, skin, nasal cavities

					(lung and nasal cancer)
Titanium dioxide	no data available	no data available	no data available	no data available	respiratory system
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
Bentonite	no data available	no data available	no data available	no data available	no data available
Molybdenum	no data available	no data available	no data available	no data available	eyes,respiratory system,liver,kidneys
Calcium Fluoride	no data available	no data available	no data available	no data available	no data available
Limestone	no data available	no data available	no data available	no data available	eyes,respiratory system,skin
Silicon	no data available	no data available	no data available	no data available	eyes,respiratory system,skin

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Iron	not applicable	not applicable	not applicable	not applicable	not applicable
Chromium	not applicable	not applicable	not applicable	not applicable	not applicable
Nickel	not applicable	Group 1 Group 2B	Known Reasonably Anticipated	X	not applicable
Titanium dioxide	A4	Group 2B	not applicable	X	not applicable
Feldspar	not applicable	Group 2B	not applicable	not applicable	not applicable
Manganese	not applicable	not applicable	not applicable	not applicable	not applicable
Bentonite	not applicable	not applicable	not applicable	not applicable	not applicable
Molybdenum	not applicable	not applicable	not applicable	not applicable	not applicable
Calcium Fluoride	not applicable	not applicable	not applicable	not applicable	not applicable
Limestone	not applicable	not applicable	not applicable	not applicable	not applicable
Silicon	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 <i>Morone saxatilis</i> 96 h LC50 = 0.56 mg/L <i>Cyprinus carpio</i> 96 h	no data available	no data available	N/A
Chromium	no data available	no data available	no data available	no data available	N/A
Nickel	EC50 = 0.18 mg/L <i>Pseudokirchneriella subcapitata</i> 72 h EC50 0.174 - 0.311 mg/L <i>Pseudokirchneriella subcapitata</i> 96 h	LC50 > 100 mg/L <i>Brachydanio rerio</i> 96 h LC50 = 1.3 mg/L <i>Cyprinus carpio</i> 96 h LC50 = 10.4 mg/L <i>Cyprinus carpio</i> 96 h	no data available	EC50 > 100 mg/L 48 h EC50 = 1 mg/L 48 h	N/A
Titanium dioxide	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
Bentonite	no data available	LC50 8.0 - 19.0 g/L <i>Salmo gairdneri</i> 96 h LC50 = 19000 mg/L <i>Oncorhynchus mykiss</i> 96 h	no data available	no data available	N/A
Molybdenum	no data available	no data available	no data available	no data available	N/A
Calcium Fluoride	no data available	no data available	no data available	no data available	N/A
Limestone	no data available	no data available	no data available	no data available	N/A
Silicon	no data available	no data available	no data available	no data available	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	Does not Comply
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
Chromium	7440-47-3	10-30	1.0
Nickel	7440-02-0	5-10	0.1
Feldspar	68476-25-5	1-5	1.0
Manganese	7439-96-5	5-10	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
Chromium	5000 lb	Not applicable
Nickel	100 lb	Not applicable
Titanium dioxide	Not applicable	Not applicable
Feldspar	Not applicable	Not applicable
Manganese	Not applicable	Not applicable
Bentonite	Not applicable	Not applicable
Molybdenum	Not applicable	Not applicable
Calcium Fluoride	Not applicable	Not applicable
Limestone	Not applicable	Not applicable
Silicon	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
Nickel	7440-02-0	carcinogen
Chromium	7440-47-3	carcinogen, initial date 2/27/87, developmental female, male 12/19/08

16. OTHER INFORMATION

Prepared By	Christopher Drogin
Supersedes Date	03/26/2012
Issuing Date	06/14/2013
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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