

Safety Data Sheet: ALUMI-ARC ELECTRODE

Supersedes Date 02/22/2012

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name ALUMI-ARC ELECTRODE

Recommended use ARC welding

Information on Manufacturer

X-ERGON by Partsmaster, Div of NCH Corp.

P.O. Box 655326

Dallas, TX 75265-5326

Product Code 1414GREN

Chemical nature Inorganic solid blend

Emergency Telephone Number

CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color greenish-blue

Physical State Solid

Odor No information available

GHS

Classification

Physical Hazards

None

Health Hazard

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Category 3

Category 2B

Other hazards

None

Labeling

Signal Word

WARNING

Hazard Statements

H316 - Causes mild skin irritation

H320 - Causes eye irritation

Precautionary Statements

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

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 - If skin irritation occurs, get medical attention.

P337 + P313 - If eye irritation persists, get medical attention.

45 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Aluminum	7429-90-5	15-40
Potassium chloride	7447-40-7	1-10
Sodium chloride	7647-14-5	10-30
Aluminum fluoride	7784-18-1	1-10
Silicon	7440-21-3	1-10
Potassium kryolith	13775-52-5	1-10
Lithium Cryolite	13821-20-0	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. Keep eye wide open while rinsing. 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

Rinse mouth. If swallowed, do not induce vomiting - seek medical advice.

Notes to physician

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flash Point

The product is not flammable

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
HMIS Health 2

Flammability 0
Flammability 0

Instability 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 . Do not flush into surface water or sanitary sewer system.
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. Store in low humidity environment at ambient temperature. Keep sealed in original packing material until ready to use .			
Storage	Keep container tightly closed in a dry and well-ventilated place. 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
Aluminum	TWA: 1 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³
Potassium chloride	No data available	No data available	No data available
Sodium chloride	No data available	5 mg/m ³ PNOR (as solid)	No data available
Aluminum fluoride	TWA: 2.5 mg/m ³	TWA: 2.5 mg/m ³	TWA: 2 mg/m ³ TWA: 2.5 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
Potassium kryolith	No data available	No data available	No data available
Lithium Cryolite	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	Handle in accordance with good industrial hygiene and safety practice

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Viscosity	Not applicable
Color	greenish-blue	Odor	No information available
Odor Threshold	Not applicable	Appearance	Textured black paste
pH	Not applicable	Specific Gravity	9
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	1560 - 2000 °F / 849 - 700 °C
Decomposition Temperature	No data available	Boiling Point/Range	4440 °F / 2449 °C

Flammability (solid, gas)	No data available	Method	Not applicable
Flash Point	The product is not flammable		
Autoignition Temperature	No information available.		
Upper	No data available		
Lower	No data available		

10. STABILITY AND REACTIVITY

<p>Chemical Stability Conditions to Avoid Incompatible Products Hazardous Decomposition Products</p>	<p>Stable under normal conditions. Exposure to air or moisture over prolonged periods Incompatible with oxidizing agents, Strong acids, Humid air. 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</p>
<p>Possibility of Hazardous Reactions</p>	<p>None under normal processing</p>

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	Inhalation

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 .
Ingestion	Harmful if swallowed.
Chronic Toxicity	Harmful if inhaled and may cause delayed lung injury.
Target Organ Effects	Respiratory system
Aggravated Medical Conditions	Respiratory disorders

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Aluminum	no data available	no data available	no data available	no data available	no data available
Potassium chloride	= 2600 mg/kg (Rat)	no data available	no data available	no data available	no data available
Sodium chloride	= 3 g/kg (Rat)	> 10 g/kg (Rabbit)	> 42 g/m ³ (Rat) 1 h	no data available	no data available
Aluminum fluoride	= 1800 mg/kg (Rat)	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
Potassium kryolith	no data available	no data available	no data available	no data available	no data available
Lithium Cryolite	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Aluminum	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Potassium chloride	no data available	no data available	no data available	no data available	no data available
Sodium chloride	no data available	no data available	no data available	no data available	kidney
Aluminum fluoride	no data available	no data available	no data available	no data available	skin, respiratory system
Silicon	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Potassium kryolith	no data available	no data available	no data available	no data available	no data available
Lithium Cryolite	no data available	no data available	no data available	no data available	no data available

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
Aluminum	not applicable	not applicable	not applicable	not applicable	not applicable
Potassium chloride	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium chloride	not applicable	not applicable	not applicable	not applicable	not applicable
Aluminum fluoride	not applicable	not applicable	not applicable	not applicable	not applicable
Silicon	not applicable	not applicable	not applicable	not applicable	not applicable
Potassium kryolith	not applicable	not applicable	not applicable	not applicable	not applicable
Lithium Cryolite	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
Aluminum	no data available	no data available	no data available	no data available	N/A
Potassium chloride	EC50 = 2500 mg/L Desmodesmus subspicatus 72 h	LC50 = 1060 mg/L Lepomis macrochirus 96 h LC50 750 - 1020 mg/L Pimephales promelas 96 h	no data available	EC50= 825 mg/L 48 h EC50= 83 mg/L 48 h	N/A
Sodium chloride	no data available	LC50 5560 - 6080 mg/L Lepomis macrochirus 96 h LC50 = 12946 mg/L Lepomis macrochirus 96 h LC50 6020 - 7070 mg/L Pimephales promelas 96 h LC50 = 7050 mg/L Pimephales promelas 96 h LC50 6420 - 6700 mg/L Pimephales promelas 96 h LC50 4747 - 7824 mg/L Oncorhynchus mykiss 96 h	no data available	EC50= 1000 mg/L 48 h EC50 340.7 - 469.2 mg/L 48 h	N/A
Aluminum fluoride	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
Potassium kryolith	no data available	no data available	no data available	no data available	N/A
Lithium Cryolite	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
Aluminum	7429-90-5	15-40	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
Aluminum	Not applicable	Not applicable
Potassium chloride	Not applicable	Not applicable
Sodium chloride	Not applicable	Not applicable
Aluminum fluoride	Not applicable	Not applicable
Silicon	Not applicable	Not applicable
Potassium kryolith	Not applicable	Not applicable
Lithium Cryolite	Not applicable	Not applicable

U.S. State Regulations
 California Proposition 65

This product does not contain any Proposition 65 chemicals.

16. OTHER INFORMATION

Prepared By Christopher Drogin
 Supersedes Date 02/22/2012
 Issuing Date 06/04/2013
 Reason for Revision No information available.
 Glossary No information available.
 List of References. No information available.

X-ERGON by Partsmaster, Div of NCH Corp. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.