

Issue date 09-Jul-2018

Revision date 09-Jul-2018

Revision Number 1

## 1. IDENTIFICATION

### Product identification

|                               |                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------|
| Product identifier            | Certanium® AWS ER4043 Aluminum MIG Welding Wire                                    |
| Other means of identification | 41737                                                                              |
| Recommended use               | Brazing Alloy, Welding Alloy                                                       |
| Restrictions on use           | For industrial use only These items are only intended for normal welding purposes. |

### Supplier

Corporate Headquarters:  
Cronatron, A Lawson Brand  
Lawson Products, Inc.  
8770 W.Bryn Mawr Ave.- Suite 900  
Chicago, IL 60631  
1-866-529-7664

Canadian Distribution Center:  
Lawson Canada  
7315 Rapistan Court  
Mississauga, ON L5N 5Z4  
(800) 323-5922

**24 Hour Emergency Phone Number** (888) 426-4851 (Prosar)

## 2. HAZARD(S) IDENTIFICATION

**Hazard Classification** This product is normally not considered hazardous as shipped. Avoid contact with eyes. Avoid inhalation of dust from the product. When this product is used in a welding process the most important hazards are: heat, radiation, electric shock and welding fumes.

**Symbol** Not applicable

**Signal word** Not applicable

**Hazard statements** Not applicable

### Precautionary statements

**Prevention** Not applicable

**Response** Not applicable

**Storage** Not applicable

**Disposal** Not applicable

**Hazard(s) Not Otherwise Classified (HNOC)** None known.

**Physical Hazards Not  
Otherwise Classified  
(PHNOC)** None known.

**Unknown acute toxicity** None known

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Composition** This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

| Chemical name | CAS-No    | Weight % |
|---------------|-----------|----------|
| Aluminum      | 7429-90-5 | 82-96    |
| Silicon       | 7440-21-3 | 1-10     |

### 4. FIRST-AID MEASURES

#### Necessary first-aid measures

**Inhalation** Remove to fresh air immediately or administer oxygen. Get medical attention immediately.

**Ingestion** Seek medical attention immediately.

**Skin contact** Flush area with large quantities of water. Seek medical attention if irritation persists. Seek medical attention if irritation occurs.

**Eye contact** Flush with plenty of water for at least 15 minutes. Get medical attention.

**Most important symptoms  
(acute)** Electric shock can kill. For electric shock, disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live wire parts or wires. Immediately contact a physician.

**Most important symptoms  
(over-exposure)** Not applicable.

**Indication of any immediate  
medical attention and  
special treatment needed** Not applicable.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing  
media** Alcohol resistant foam. Water spray. Dry chemical. Carbon dioxide (CO2).

**Unsuitable extinguishing  
media** Not applicable.

**Specific hazards** Welding arcs and sparks can ignite combustible and flammable materials. Hazardous Thermal Decomposition Products: Aluminum oxide. silicon oxides.

**Special protective equipment  
for fire-fighters** Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions,  
protective equipment and  
emergency procedures**

Use personal protection recommended in Section 8. For waste disposal, see section 13 of the SDS.

**Methods and materials  
for containment and  
cleaning up**

Solid objects may be picked up and placed in a container. Make sure the solid objects are at room temperature before handling. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

## 7. HANDLING AND STORAGE

**Precautions for  
safe handling**

Handle with care to avoid stings or cuts. Wear gloves when handling welding consumables. Avoid exposure to dust and do not ingest. Some individuals may develop an allergic reaction to certain materials. Retain all warning and identity labels.

**Conditions for safe  
storage, including any  
incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions. Ground/bond container and receiving equipment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

| Chemical name | OSHA PEL (TWA)                                      | ACGIH OEL (TWA)         | NIOSH - TWA                                                                                            |
|---------------|-----------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------|
| Aluminum      | 15 mg/m <sup>3</sup> TWA<br>5 mg/m <sup>3</sup> TWA | 1 mg/m <sup>3</sup> TWA | 10 mg/m <sup>3</sup> TWA<br>5 mg/m <sup>3</sup> TWA 5 mg/m <sup>3</sup> TWA 5<br>mg/m <sup>3</sup> TWA |
| Silicon       | 15 mg/m <sup>3</sup> TWA<br>5 mg/m <sup>3</sup> TWA | -                       | 10 mg/m <sup>3</sup> TWA<br>5 mg/m <sup>3</sup> TWA                                                    |

**Appropriate engineering  
controls**

Avoid exposure to welding fumes, radiation, spatter, electric shock, heated materials and dust. Ensure sufficient ventilation, local exhaust, or both, to keep welding fumes and gases from breathing zone and general area. Keep workplace and protective clothing clean and dry. Train the welder not to touch live electrical parts and to insulate himself from work and ground. Check condition of protective clothing and equipment on a regular basis. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Processing may form hazardous compounds, refer to section 10.

**Individual protection measures,  
such as personal protective  
equipment**

**Eye protection**

Welder's helmet or face shield with color absorbing lenses. Shield and filter to provide protection from harmful UV radiation, infrared and molten metal approved to standard EN379. Filter shade to be a minimum of shade 9.

**Skin and body protection**

Heat-resistant protective clothing. Wear safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry. Clothing should be selected to suit the level, duration and purpose of the welding activity. Wear appropriate gloves to prevent skin contact. Wear welding gloves.

**Respiratory protection**

Use an air purifying dust respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**Canadian Province Occupational**

## Exposure Limits

| Chemical name | Alberta<br>OEL                                         | British<br>Columbia<br>OEL                                | Manitoba<br>OEL            | New<br>Brunswick<br>- OEL                              | Newfoundl<br>and &<br>Labrador -<br>OEL | Nova<br>Scotia -<br>OEL    | Ontario<br>OEL             | Prince<br>Edward<br>Island -<br>OEL | Quebec<br>OEL                                                                                    | Saskatche<br>wan - OEL                                                                                                 |
|---------------|--------------------------------------------------------|-----------------------------------------------------------|----------------------------|--------------------------------------------------------|-----------------------------------------|----------------------------|----------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Aluminum      | 10 mg/m <sup>3</sup><br>TWA 5<br>mg/m <sup>3</sup> TWA | 1.0 mg/m <sup>3</sup><br>TWA                              | 1 mg/m <sup>3</sup><br>TWA | 10 mg/m <sup>3</sup><br>TWA 5<br>mg/m <sup>3</sup> TWA | 1 mg/m <sup>3</sup><br>TWA              | 1 mg/m <sup>3</sup><br>TWA | 1 mg/m <sup>3</sup><br>TWA | 1 mg/m <sup>3</sup><br>TWA          | 10 mg/m <sup>3</sup><br>TWA EV 5<br>mg/m <sup>3</sup><br>TWA EV 5<br>mg/m <sup>3</sup><br>TWA EV | 20 mg/m <sup>3</sup><br>STEL 10<br>mg/m <sup>3</sup><br>STEL<br>10 mg/m <sup>3</sup><br>TWA 5<br>mg/m <sup>3</sup> TWA |
| Silicon       | -                                                      | 10 mg/m <sup>3</sup><br>TWA<br>3 mg/m <sup>3</sup><br>TWA | -                          | 10 mg/m <sup>3</sup><br>TWA                            | -                                       | -                          | -                          | -                                   | 10 mg/m <sup>3</sup><br>TWA EV                                                                   | 20 mg/m <sup>3</sup><br>STEL<br>10 mg/m <sup>3</sup><br>TWA                                                            |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                            |                    |
|--------------------------------------------|--------------------|
| Physical state                             | Solid              |
| Color                                      | Metallic           |
| Odor                                       | Odorless           |
| Odor threshold                             | Not applicable     |
| pH                                         | Not applicable     |
| Melting point/range °C                     | 565-593 °C         |
| Melting point/range °F                     | 1050-1100 °F       |
| Boiling point/range °C                     | Not available      |
| Boiling point/range °F                     | Not available      |
| Flash point °C / °F                        | Not applicable     |
| Evaporation rate                           | Not applicable     |
| Flammability (Solid, Gas)                  | Not available      |
| Lower explosion limit                      | Not applicable     |
| Upper explosion limit                      | Not applicable     |
| Vapor pressure                             | Not applicable     |
| Vapor density                              | Not applicable     |
| Relative density                           | 6                  |
| Solubility                                 | Insoluble in water |
| Partition coefficient<br>(n-octanol/water) | Not applicable     |

|                              |                |
|------------------------------|----------------|
| Autoignition temperature °C  | Not applicable |
| Autoignition temperature °F  | Not applicable |
| Decomposition temperature °C | Not available  |
| Decomposition temperature °F | Not available  |
| Viscosity                    | Not available  |

## 10. STABILITY AND REACTIVITY

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | Stable under normal conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Chemical stability                 | Stable under normal conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Possibility of hazardous reactions | Contact with chemical substances like acids or strong bases could cause generation of gas. Keep away from any possible contact with water, because of violent reaction and possible flash fire.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Conditions to avoid                | Stable under normal conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Incompatible materials             | Incompatible with acids. Avoid contact with moisture and water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Hazardous decomposition products   | When this product is used in a welding process, hazardous decomposition products would include those from volatilization, reaction or oxidation of the materials listed in section 3 and those from the base metal and coating. The amount of fumes generated from this product varies with welding parameters and dimensions. Refer to applicable national exposure limits for the fume compounds. Reasonably expected gaseous products would include: carbon oxides. Nitrogen oxides (NOx). Ozone. Air contaminants around the welding area can be affected by the welding process and influence the composition and quality of fumes and gases produced. |

## 11. TOXICOLOGICAL INFORMATION

|                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information on likely routes of exposure                                                   | Dermal. Inhalation.                                                                                                                                                                                                                                                                                                                                                                                         |
| Symptoms                                                                                   | Prolonged inhalation may be harmful. Welding fumes cannot be classified simply. Their composition and quantity are dependent upon the metal being welded, the process, procedures and electrodes being used. Overexposure to welding fumes may result in discomfort such as metal fume fever, dizziness, nausea, or dryness or irritation of nose, throat or eyes. May cause sensitization by skin contact. |
| Delayed and immediate effects as well as chronic effects from short and long-term exposure | Overexposure to welding fumes may affect pulmonary function and eyes.                                                                                                                                                                                                                                                                                                                                       |

### Numerical measures of toxicity

| Chemical name | Inhalation LC50: | Dermal LD50: | Oral LD50:           |
|---------------|------------------|--------------|----------------------|
| Aluminum      | -                | -            | -                    |
| Silicon       | -                | -            | = 3160 mg/kg ( Rat ) |

|                 |               |
|-----------------|---------------|
| ATEmix (dermal) | Not available |
|-----------------|---------------|

|                               |               |
|-------------------------------|---------------|
| ATEmix (oral)                 | Not available |
| ATEmix (inhalation-gas)       | Not available |
| ATEmix (inhalation-vapor)     | Not available |
| ATEmix (inhalation-dust/mist) | Not available |

#### Carcinogenicity

| Chemical name | ACGIH OEL - Carcinogens | IARC | OSHA RTK Carcinogens | NTP |
|---------------|-------------------------|------|----------------------|-----|
| Aluminum      | A4                      | -    | -                    | -   |
| Silicon       | -                       | -    | -                    | -   |

#### Canadian Province carcinogenicity limits

| Chemical name | Alberta - Carcinogen | British Columbia - Carcinogen | Manitoba - Carcinogen | New Brunswick - Carcinogen | Nova Scotia - Carcinogen | Quebec - Carcinogen |
|---------------|----------------------|-------------------------------|-----------------------|----------------------------|--------------------------|---------------------|
| Aluminum      | -                    | -                             | ACGIH A4              | -                          | ACGIH A4                 | -                   |
| Silicon       | -                    | -                             | -                     | -                          | -                        | -                   |

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish |
|---------------|----------------------|------|
| Aluminum      | -                    | -    |
| Silicon       | -                    | -    |

**Persistence and degradability** Not readily biodegradable.

#### Bioaccumulation

| Chemical name         | CAS-No    | Partition coefficient (log Kow) |
|-----------------------|-----------|---------------------------------|
| Aluminum<br>7429-90-5 | 7429-90-5 | -                               |
| Silicon<br>7440-21-3  | 7440-21-3 | -                               |

**Mobility in soil** This product is not mobile in the soil.

**Other adverse effects** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

## 13. DISPOSAL CONSIDERATIONS

**Disposal information** As supplied, this product is a RCRA Hazardous Waste. Discard container or liner in accordance with federal, state, and local regulations.

**Contaminated packaging** Dispose in accordance with local, state and federal regulations.

## 14. TRANSPORTATION INFORMATION

### Shipping Descriptions

#### DOT

Proper shipping name Not regulated

#### TDG

Proper shipping name Not regulated

#### IATA

Proper shipping name Not regulated

#### IMDG/IMO

Proper shipping name Not regulated

### Marine Pollutants

| Chemical name | CAS-No    | USDOT Marine Pollutant | Canada TDG Marine Pollutant | IMDG Marine Pollutant |
|---------------|-----------|------------------------|-----------------------------|-----------------------|
| Aluminum      | 7429-90-5 | -                      | -                           | -                     |
| Silicon       | 7440-21-3 | -                      | -                           | -                     |

**Special Precautions** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## 15. REGULATORY INFORMATION

### State regulations

#### U.S. state Right-to-Know regulations

| Chemical name | CAS-No    | Massachusetts - RTK | New Jersey - RTK | Pennsylvania - RTK |
|---------------|-----------|---------------------|------------------|--------------------|
| Aluminum      | 7429-90-5 | X                   | X                | X                  |
| Silicon       | 7440-21-3 | X                   | X                | X                  |

#### California Prop. 65

| Chemical name | CAS-No    | California Prop. 65 |
|---------------|-----------|---------------------|
| Aluminum      | 7429-90-5 | -                   |
| Silicon       | 7440-21-3 | -                   |

California Proposition 65

Warning: This product contains or produces a chemical known to the State of California to cause birth defects (or other reproductive harm) and cancer

### U.S. Federal Regulations

## US EPA SARA 313

| Chemical name | CAS-No    | CERCLA/SARA<br>Hazardous Substances RQ | SARA 313 - Threshold Values |
|---------------|-----------|----------------------------------------|-----------------------------|
| Aluminum      | 7429-90-5 | -                                      | 1.0 %                       |
| Silicon       | 7440-21-3 | -                                      | -                           |

## US EPA SARA 311/312 hazardous categorization

Not applicable

## International inventories

All components of this product are listed on the following inventories: U.S.A. (TSCA 8(b)), Canada (DSL/NDSL) or are exempt.

| Chemical name | DSL/NDSL | Inventory - United States -<br>Section 8(b) Inventory (TSCA) | U.S. - TSCA (Toxic<br>Substances Control Act) -<br>Section 12(b) - Export<br>Notification |
|---------------|----------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Aluminum      | X        | X                                                            | -                                                                                         |
| Silicon       | X        | X                                                            | -                                                                                         |

Legend X - Listed

## 16. OTHER INFORMATION

### NFPA

|              |               |
|--------------|---------------|
| Health       | Not available |
| Flammability | Not available |
| Instability  | Not available |

### HMIS

|                  |               |
|------------------|---------------|
| Health           | Not available |
| Flammability     | Not available |
| Physical hazards | Not available |

Notice: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

**Prepared by** Regulatory Affairs

**Issue date** 09-Jul-2018

**Revision date** 09-Jul-2018

## Revision note

## Key to abbreviations

- ACGIH (American Conference of Governmental Industrial Hygienists)
- ATE (Average Toxicity Estimate)
- DSL/NDSL (Domestic Substance List/Non-Domestic Substance List)
- HMIS (Hazardous Materials Identification System)
- IARC (International Agency for Research on Cancer)
- IATA (International Air Transport Association)
- IMDG/IMO (International Maritime Dangerous Goods/International Maritime Organization)

---

NFPA (National Fire Protection Association)  
NTP (National Toxicology Program)  
OEL (Occupational Exposure Level)  
OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
PEL (Permissible Exposure Limit)  
TSCA (Toxic Substance Control Act)  
USEPA (United States Environmental Protection Agency)

**Disclaimer**

**The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.**

**End of Safety Data Sheet**